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BY

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DIRECTOR'S PREFACE

This comprehensive investigation of the factors responsible for the prevailing stagnation in the American capital markets was begun two years ago. One section of the analysis, the relation of taxation to investment, was published in pamphlet form in the spring of 1939. The study as a whole is intended to clarify the issues involved in a problem of fundamental importance to the well-being of the American people and to offer suggestions which, it is believed, would serve to remove impediments to the flow of funds into investment channels and to stimulate capital expansion.

In the preparation of the volume the authors have had the opportunity to discuss the various issues involved both with officials of government regulatory agencies and with representatives of industrial and financial groups. They have also had the benefit of criticisms and suggestions of various members of the Institution's staff, including Charles O. Hardy, Henry P. Seidemann, Daniel T. Selko, and Meyer Jacobstein. To all these the authors desire to express their indebtedness.

Karl T. Schlotterbeck has rendered invaluable assistance in connection with all phases of the investigation, and particularly Chapters VI to IX inclusive, where his contributions were akin to joint authorship. Hugo Bezdek, Jr., rendered important aid in connection with Chapters I and II. Professor M. Slade Kendrick of Cornell University collaborated in the preparation of the chapter on taxation in relation to investment.

EDWIN G. NOURSE
Director

Institute of Economics
May 1940

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INTRODUCTION

More than ten years have elapsed since the advent of the great depression, and seven years have passed since the beginning of the recovery movement of 1933. Except during a short-lived inventory boom of 1936-37 the level of national income in the United States has not even approached that of the late twenties. Depression, with its accompaniment of idle money, idle capital, and idle men appears to have become a chronic condition.

Out of the welter of discussion and controversy of recent years the view has gradually emerged that a primary source of difficulty is to be found in the restricted flow of funds—particularly long-term investment money—into new capital enterprise. Statistical evidence and common observation alike indicate that the recovery of recent years has not been accompanied by any extensive expansion of new capital enterprises and that in many lines the replacement and rehabilitation of existing plant and equipment has been subnormal. The persistently depressed condition of the so-called capital goods industries appears to be generally regarded as the feature which most strikingly distinguishes the present period from the economic recoveries of former times. This fact is conceded to go far toward explaining the low level of economic activity, the unprecedented volume of unemployment, and the reservoirs of idle funds.

There is, however, the widest difference of opinion with reference to the causes responsible for the stagnant condition of the so-called capital markets. Some attribute the situation chiefly to the regulations imposed upon the securities business. Others regard it as due to a basic lack of confidence in government attitudes and policies generally and to fears with respect to the whole future of private enterprise. There are also those who charge that it represents simply a strike of capital, engineered with a view to scuttling the government's entire social program.

From the broader economic and business point of view, doubts are entertained by many economists and business men with respect to the magnitude of investment opportunities in the near future—

for they cannot clearly discern any new industries comparable in significance to those of former days. Other observers, associated principally with the government, are convinced that the United States is now at the end of an economic epoch and that accordingly little opportunity remains for further expansion under private enterprise. They regard the last 100 years or so as an era peculiarly favorable to the flowering of private capitalism. The opening of vast new productive areas and a phenomenal expansion of population, together with scientific discoveries and inventions and the development of the corporate form of business organization, combined to give private enterprise a unique but unrepeatable opportunity for the exploitation of its peculiar capacities. We have now, it is argued, reached a stage of economic maturity in which the field of private enterprise is necessarily so restricted that we must look to government enterprise and vision to open the highways to further progress.

The issues thus raised are obviously of fundamental significance. The future economic stability of this country will largely depend upon how they are settled. Whether or not the United States has reached the end of an economic epoch, it is clear that we are now at a crucial stage so far as economic thought and public policy are concerned. The purpose of this volume is to throw such light on these issues as scientific investigation may make possible.

The factors involved in the problem under consideration are complex in character; there is no single, simple cause or remedy. It should perhaps be noted in this connection that the phenomenon with which we are concerned is not confined to the United States. Until armament and war programs came to dominate the economies of European countries, most of them were also confronted, in varying degrees, with stagnant capital markets, idle factories, and persistent unemployment. The situation was particularly acute in such normally capital exporting countries as Great Britain, Holland, and France which, because of international economic and financial disorganization, found themselves dependent almost entirely upon internal outlets for investment money.

The scope and focus of this volume is suggested by the titles given to the two major sections into which the analysis is divided.

The first is "Investment Trends and Capital Requirements," and the second "Government Policies and Private Capital Expansion."

The study is of limited objective in that it does not undertake to analyze *all* of the varied factors—private as well as public—which affect the economic situation. It does not cover agriculture, or labor problems, or price and wage policies in relation to economic progress. Nor does it discuss the bearing of international factors upon the future of American industry. It is concentrated on the factors which directly affect the flow of funds into investment enterprise.

PART I

INVESTMENT TRENDS AND CAPITAL REQUIREMENTS

INTRODUCTORY STATEMENT

The first division of this study, covering nine chapters, has four major purposes.

First, as a background against which to consider the capital market situation at this juncture, it presents the essential facts with respect to investment outlets and sources of funds in the United States prior to 1930, and then shows the striking changes which have occurred during the last ten years.

Second, it discloses the effects of current trends upon both long- and short-term interest rates and investment yields, and the resulting impairment of the incomes of individuals and institutional investors.

Third, it shows the effects of the prolonged depression upon the financial status of corporations, both large and small, indicating particularly the extent of the dissipation of assets which has occurred.

Fourth, an attempt is made to give an answer to such vital current questions as the following: Are there significant needs and opportunities for further private capital expansion in the United States and, if so, in what types of economic enterprise? Are American corporations now in a position to finance the great bulk of potential capital requirements from internal sources—without resort to the investment market? What are the possibilities for future employment in connection with the expansion of capital enterprise and the raising of standards of living?

CHAPTER I

INVESTMENT OUTLETS AND SOURCES OF FUNDS PRIOR TO 1930

The dearth of private security flotations in recent years has naturally raised in many minds the query: Can we expect from now on a flow of funds into new investment comparable in volume to that of former times? Where, concretely, are we to find investment outlets that can match those afforded, for example, by the railroad, public utility, and industrial expansion of pre-depression and pre-war days? In short, are we not faced with a permanent reduction of investment opportunity in fields of private enterprise, as a result of which investment money must either remain in stagnant pools or find employment in public enterprise?

From an opposite point of view, observation of recent trends suggests the possibility that the difficulty may be found rather in a drying up of the supply of investment money. Does not the reduction of incomes, both corporate and private, coupled with the progressive increase of taxation, inevitably mean a serious impairment in the supply of money savings available for new investment? Have not the low interest rates lessened the incentive to save?

In the light of this prevailing confusion of thought, it seems essential to review the history of capital investment in the United States in order to provide a background against which to consider the present situation and future possibilities in the field of capital enterprise. What have been the principal outlets for capital funds at different periods in our history, and from what sources have the required funds been derived? We shall present first a summary of the history of American investment prior to 1930, and then, in the two chapters which follow, analyze in greater detail the trends during the period of stagnation since the beginning of the world depression.

In the present chapter we shall endeavor to disclose the general character of the so-called capital market during the long period of development from colonial days until 1930. On the demand side, we shall show what fields of enterprise have absorbed the supply of investment money and the significant changes which have occurred from time to time in the character of investment outlets. On the supply side, we shall indicate the principal sources from which the funds required for capital expansion have been obtained.

I. OUTLETS FOR INVESTMENT FUNDS

The fields of enterprise in which investment money has found employment in the United States have varied widely at different periods of our history. This is attributable in part to the constantly increasing complexity of our economic life and in part to the great shifts in economic conditions which have occurred at intervals. Accordingly, it is desirable to divide the analysis of the outlets for investment funds into several periods as follows: from colonial days to 1906; from 1907 to 1914; the war years 1915 to 1919; and the post-war decade of the twenties. The second period is begun with the year 1907 rather than 1900 simply because of the more adequate statistical information that became available at that time. The prevailing characteristics of the various periods will be disclosed in the course of the analysis. The period since 1929 will be discussed in the ensuing chapter.

A. In Our Earlier History

Because of the abundance of natural resources capable of development, the *potential demand* for funds in the new world was almost limitless at the time colonization began. However, the opening of actual outlets for funds, in important amounts, waited upon new techniques and inventions in transportation, communication, industry, and finance, and also upon the growth of population. How these outlets developed with the growth of the country is well known; but there are few figures showing the precise amounts employed in different types of enterprises, even in the late nineteenth century. The major developments at different periods may be briefly summarized.

In the colonial period, shipping and foreign trade were the most important outlets for funds. The building and operation of ships, privateering, and overseas trading were primary occupations. Domestic trade was of minor importance. Land development companies called for speculative capital, and some funds were required for road building, though labor contributions usually took the place of funds. Manufacturing was for the most part in the handicraft stage, and its products designed for neighborhood consumption. However, there were the beginnings of capitalistic enterprise, involving the payment of money wages in the process of production and the sale of goods, on a credit basis, in wider markets—which required the accumulation of increasing amounts of working capital. Before the Revolutionary War, the colonial governments were seldom in the market for funds; instead they issued irredeemable paper money. From 1775 until several years after the war's close, the Revolutionary government floated loans which absorbed no small volume of investment money.

During most of the nineteenth century, westward expansion and the building of transportation facilities furnished the chief investment outlets. The construction of turnpikes and toll bridges absorbed funds in relatively large amounts for about a quarter of a century after 1790. Canal building began before 1800, and increased rapidly, both in the size and number of projects, after 1817 when the Erie project was launched. The railways first called for funds in 1827, with the chartering of the Baltimore and Ohio Railroad.

These various types of transportation enterprises, together with the many banks established during these early years, though in private hands, were to a large extent financed by state and local governments. Hence financing by the states was of considerable importance from 1790 until the panic of 1837 brought on a period of economic and financial stagnation. Much capital was used for speculation in land. The cotton crop required growing expenditures for slaves and for plantation supplies and equipment following Eli Whitney's invention of 1793. Similar outlays were required for sugar production, another southern crop with a ready foreign market. The manufacturing and mining industries of the country were for the most part still operating on a small scale at the middle of the century, and their combined demand for funds was of relatively minor importance. Trading companies, however, had come to require substantial amounts of working capital.

With the revival of the expansion movement in the late 1840's, railroad building was resumed on a large scale, and—except for government financing during the Civil War—the railways furnished the principal outlets for investment funds down to the collapse of 1873. State aid to the roads, and also to banks and canal projects, added considerably to the financial requirements of the states, particularly in the South. The growth of commerce and manufactures, the expansion of agriculture, and the building industry, all called for funds in considerable amounts. There was some investment in utilities other than the railways, and in mining, and some minor acquisition of foreign properties of various kinds.

The transition to large-scale enterprise and the growth of urban population characterized the period from 1880 to 1907. By 1893 the principal transcontinental railroad routes had been completed; but the rounding out of systems continued to absorb enormous amounts of investment money. Between 1880 and 1890 there was a shift from agriculture to manufacturing as the primary source of wealth and the principal occupation of the people of the United States. An increase in manufactured exports was also noted in our foreign trade.

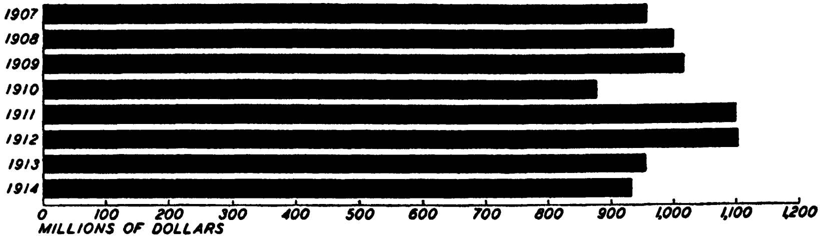
The continued growth of manufactures and the expanding distributive organization of the country absorbed investment funds in large amounts during the rest of the nineteenth and early part of the twentieth centuries. Paralleling the growth of industry there was a concentration of population in urban areas, calling for large expenditures for housing, for the construction of street and interurban railways, for water, light, and power companies, and for communication facilities.

B. From 1907 to 1929

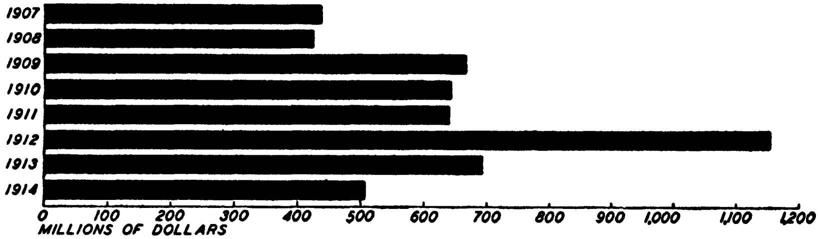
The major outlets for investment funds during the period from 1907 to 1929 were railroads, public utilities, industrial enterprises, real estate (urban and rural), foreign securities and properties, the federal government, and state and local governments. For most of these types of investments it is impossible to present annual statistical data prior to the World War. It should be borne in mind, also, that the available data are not strictly comparable for the various time periods or as among the several groups themselves. Nevertheless, they are sufficiently comprehensive to give us a reasonably accurate picture of the capital market for the period 1907 to 1929 inclusive. The supporting data for the various charts will be found in Appendix A.

PRINCIPAL SECURITY OUTLETS FOR INVESTMENT FUNDS, 1907-14[a]

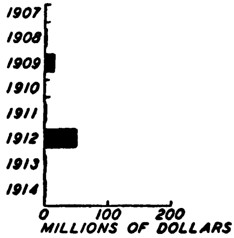
I. RAILROAD ISSUES



II. INDUSTRIAL AND PUBLIC UTILITY ISSUES



III. NET ANNUAL CHANGES IN FEDERAL DEBT



[a] For data see App. A, pp. 340-41.

1. *1907-14.* For this period the statistical data are less precise

and less comprehensive than for the later years. It is possible to present annual figures for the federal government, railroads, and industrial corporations only, and these are shown in the chart on page 8. For the other groups we have to be content with rough estimates for the 8-year period as a whole.

The largest field for investment during this period was the railroad industry.[1] Issues of railroad securities showed no great variation from year to year, averaging close to a billion dollars annually. The proceeds were used both for new mileage and for the improvement of existing properties.

The new capital issues of industrial and public utility corporations[2] show much greater annual fluctuations than was the case with railroads, ranging from 424 millions in 1908 to 1,152 millions in 1912. The average for the period was around 650 millions.

During this period there were few issues of federal government securities, the outstanding debt increasing by only 73 million dollars during the whole period from 1907 to the end of 1914. Comprehensive figures for state and local government issues are not available prior to the fiscal year beginning June 30, 1913. In the ensuing year the new issues amounted to 421 million dollars. Census estimates are available indicating the total volume of outstanding state and local government indebtedness for the years 1902 and 1913.[3] The amount outstanding in 1902 was 1,869 millions, and in the fiscal year 1912-13, 3,822 millions, an average annual increase of 195 millions. Taking account of the 421 millions increase in the year 1913-14 and the fact that the growth was undoubtedly less rapid in the earlier years of the decade, it would seem probable that the annual average from 1907 to 1914 was somewhere in the neighborhood of 250 million dollars. An estimate of 2 billions for the 8-year period would probably not be widely in error.

Another important outlet was found in the field of real estate investment, both rural and urban. While there are no data showing the amount of mortgages issued annually, periodical census data make it possible to indicate the general magnitude of this field of investment. We estimate that farm mortgages issued during the period from 1907 to 1914 averaged about 300 million dollars a year. The volume of urban mortgages probably ranged in the neighborhood of 400 millions annually.[4]

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[1] For the years 1907 to 1914 the railroad classification includes traction companies. Prior to 1920 it is impossible to show the issues exclusive of refunding.

[2] From 1907 to 1914 public utilities, other than traction companies, are included by reporting agencies in the general category "industrials."

[3] The figures represent net debt rather than the volume of outstanding securities, allowance having been made for sinking fund accumulations.

The purchase of foreign securities constitutes an additional, though relatively unimportant, outlet for investment funds during this period. Some foreign securities were publicly offered in the American investment market, and American investors also purchased bonds and shares which were issued in foreign countries. The volume of such security purchases during this 8-year period—in excess of repurchases by foreigners—aggregated something like 260 million dollars, or 35 million dollars a year.[5]

2. *1915-19.* For this period we are able to present annual data for all groups except real estate. The reader should again bear in mind, while studying the chart on page 11, that the data for the various groups are not directly comparable. The order of arrangement in this chart has been altered in accordance with the shifting importance of the various outlets, the chart again being arranged in a descending scale.

The outstanding feature of this period was the enormous increase in federal government flotations. The sharp expansion in the federal debt did not begin until the United States entered the World War in 1917. In the three years 1917 to 1919 it increased by more than 24 billion dollars. Of this total almost 10 billions was loaned to foreign governments. The bulk of the funds disbursed in American markets went for war munitions and supplies; a comparatively small amount was devoted to the actual construction of permanent capital structures required by the military establishment.

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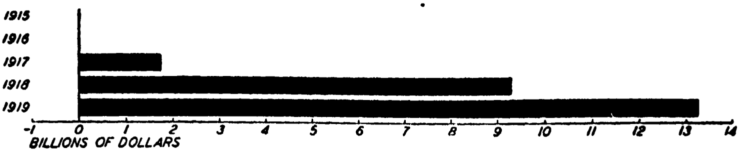
[4] See App. A, pp. 342-46.

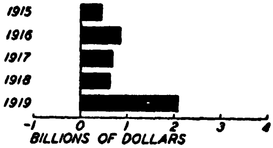
[5] See App. A, pp. 346-48. It should be noted here that there were also substantial direct investments by American corporations and individuals in foreign properties; we are here, however, concerned only with security purchases in the investment markets. In this calculation no account is taken of offsetting foreign investments in the United States, which are considered in the next section dealing with sources of capital for American enterprise.

Principal Security Outlets for Investment Funds, 1915-19[a]

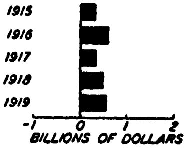
I. NET ANNUAL CHANGES IN FEDERAL DEBT



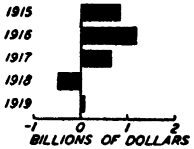
II. INDUSTRIAL ISSUES



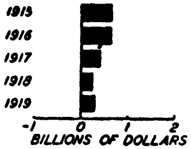
III. PUBLIC UTILITY ISSUES



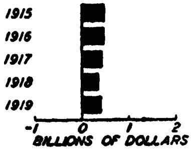
IV. NET PURCHASES OF FOREIGN SECURITIES



V. RAILROAD ISSUES



VI. NET ANNUAL CHANGES IN STATE AND LOCAL GOVERNMENT DEBT



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[a] For data, see App. A, pp. 340-42.

Another large outlet for investment funds during the years 1915 to 1919 was in the field of American industry. Notwithstanding the establishment of a Capital Issues Committee, which placed a partial embargo upon private security flotations, the industrial requirements of war were such as to necessitate considerable capital expansion in industrial enterprises.

There was a marked decrease in industrial flotations in 1914 and 1915 and a phenomenal increase in 1919. In this year security issues exceeded 2 billion dollars as compared with less than half a billion in 1915.

The field of public utilities showed only a moderate expansion in security flotations during this 5-year period. The new issues averaged approximately 450 million dollars annually.

The issues of state, county, and municipal governments during the war years continued at a practically stationary level. The increase in 1914 had been 421 million dollars, and the average for the next five years was 418 million dollars. In view of the very sharp expansion that occurred in the post-war period, it would appear that new financing during the war years was confined to minimum requirements.

Railroad flotations showed a steady decline during the war years proper, and there was only a slight increase in 1919. It will be recalled that the management of the railroads was taken over by the government in 1918 and that the railroads were not returned to private hands until 1920. New capital issues were floated only for the purpose of facilitating the war program.

The field of real estate continued to offer a substantial outlet for investment money during this period. We estimate that farm mortgages increased at the rate of about 700 millions a year and urban real estate mortgages at the rate of 400 millions.[6] There were also some issues of real estate securities during this period, but the amounts are unknown. The real estate field probably absorbed at least 1.1 billion dollars annually during this period.

The purchase of foreign securities by American investors increased sharply in the early war years. The securities bought were chiefly British and French government securities floated in our markets prior to our entrance into the war. The accompanying chart shows for the year 1918 a "minus" figure, which requires explanation. In that year there were large repayments of short-term floating indebtedness, principally to American banks, such payments being made possible by the loans which were then being extended on a large scale to the allied governments by the United States Treasury. In addition to the purchase of foreign securities during this period, American investors also repurchased a large amount of American securities and properties formerly held by foreigners. It is estimated that transactions of this sort aggregated about 2.3 billion dollars during the years 1915 to 1919.[7]

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[6] See App. A, pp. 342-46.

3. *1920-29.* The data covering this period are shown in the chart on page 14. The figures represent more accurate compilations and more complete coverage than those for preceding years. It will be seen that during this period of rapid economic expansion the demand for investment funds for private enterprise expanded all along the line. There was a very great increase in the flotation of industrial and public utility corporations and a substantial expansion in the case of railroads. Real estate financing rose to enormous proportions, and our purchases of foreign securities reached an unprecedented level. While state and local government issues showed a great increase during the twenties, the federal government not only absorbed no investment funds, but through budget surpluses returned about 800 million dollars annually to the investment market.

Public utility and industrial enterprises became the most important fields for security investment during the twenties. The average volume of flotations in these fields was four times that of the years 1907 to 1914. From 1924 to 1929 public utility issues averaged nearly 1.5 billion dollars annually, as compared with less than 500 millions in the war period.[8] Industrial flotations were at a high level throughout the twenties, averaging in the period 1924-29 about 1.7 billions, or more than twice the volume of the war period.

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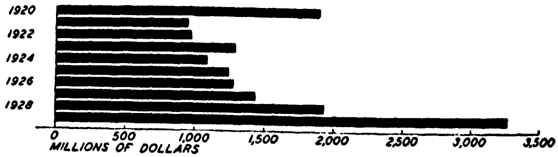
[7] For data supporting this estimate, see App. A, pp. 346-48.

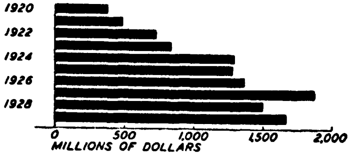
[8] These figures do not include public utility holding companies, which are placed in a separate classification along with investment trusts and trading corporations.

Principal Security Outlets for Investment Funds, 1920-29[a]

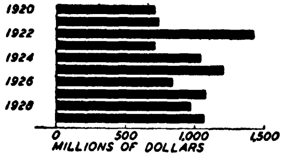
I. INDUSTRIAL ISSUES



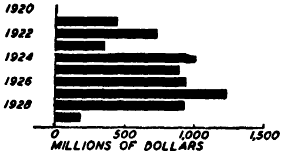
II. PUBLIC UTILITY ISSUES



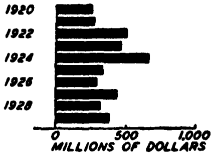
III. NET ANNUAL CHANGES IN STATE AND LOCAL GOVERNMENT DEBT



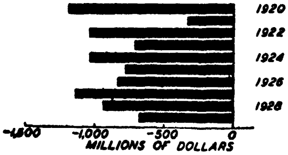
IV. NET PURCHASES OF FOREIGN SECURITIES



V. RAILROAD ISSUES



VI. NET ANNUAL CHANGES IN FEDERAL DEBT



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[a] For data, see App. A, pp. 340-48.

The enormous expansion in the volume of industrial issues is explained in part by financial considerations. Prior to and during the World War a very large amount of industrial expansion had been financed by extensions of bank credit, the obligations appearing on the balance sheets of corporations in the form of bank loans. This trend was attributable in part to a dearth of savings funds available for the purchase of industrial issues and in part to the belief that bank loans represented a flexible form of financing which could be readily expanded or contracted to meet the varying requirements of business. However, the great difficulties encountered in connection with these bank loans in the crisis of 1920-21 emphasized the desirability of procuring corporate capital through the sale of securities in the investment market rather than from bank loans. From 1921 to 1924 there were large bond flotations for the purpose of paying off bank loans, as well as for financing expansion needs, while after 1924 stock issues became the favorite means of financing additional capital requirements.

The late twenties witnessed the growth of investment trusts and holding and trading corporations which floated huge volumes of securities, the proceeds of which were mainly used to invest in outstanding issues of existing corporations. While the funds did not go for actual capital expansion, such issues have to be included as outlets for money savings of individuals. They increased from 15 millions in 1925 to over 2 billion dollars in 1929.[9]

The outlet for funds in railroad enterprise remained at a low level through 1921, but rose sharply in the years which followed. The average during the next nine years was 449 million dollars.[10] The railroads, as an outlet for investment funds, had declined both in relative and in absolute importance, as compared with the pre-war period, when annual flotations were more than double those of the twenties. The new capital raised in the twenties was devoted not to the construction of new mileage but to the modernization of existing facilities.

Real estate issues, including mortgages and securities, provided the largest outlet for investment money in the twenties. The great expansion which occurred resulted chiefly from the housing boom following the period of suspended building operations during the years 1916 to 1921. Farm mortgage indebtedness increased but slowly after 1920 and reached a peak in 1922. In addition to urban mortgages, we now find real estate corporations floating real estate bonds and stock on a large scale. The volume of listed issues increased from 91 million dollars in 1920 to an average of 686 millions during the four years 1925 to 1928. There was also a considerable volume of "over the counter" real estate issues. The Department of Commerce estimates the total volume outstanding to have increased in the 11-year period 1920-30 by 6,450 million dollars or at the rate of 590 million dollars annually.

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[9] For the volume of such issues annually, see App. A, p. 340.

[10] This period includes the year 1930, when the volume of issues reached a peak of 690 millions.

These estimates indicate that the average annual volume of real estate financing during the decade of the twenties was approximately 2.6 billion dollars. Of this total urban mortgages accounted for about 1,900 millions; real estate security issues about 590 millions; and farm mortgages about 120 millions.

State and local government issues also provided important outlets for investment money during this period. The volume of issues from 1922 to 1929 was more than double that of the years immediately preceding the war. These funds were largely devoted to the development of enterprises regarded as of economic and social importance, such as highways, streets and sewers, recreational and health facilities, and education.

Foreign outlets for American investment money expanded enormously in the twenties in comparison with the years preceding the war. From a level of around 35 million dollars a year between 1907 and 1914, the amount of our net purchases of foreign securities rose to an average of over 800 million dollars in the years 1921 to 1928.[11] The bulk of these securities was issued by foreign governments and corporations for sale directly in the American market.

4. *Summary, 1907-29.* We now present a summary picture of investment trends for the entire period under review. The chart

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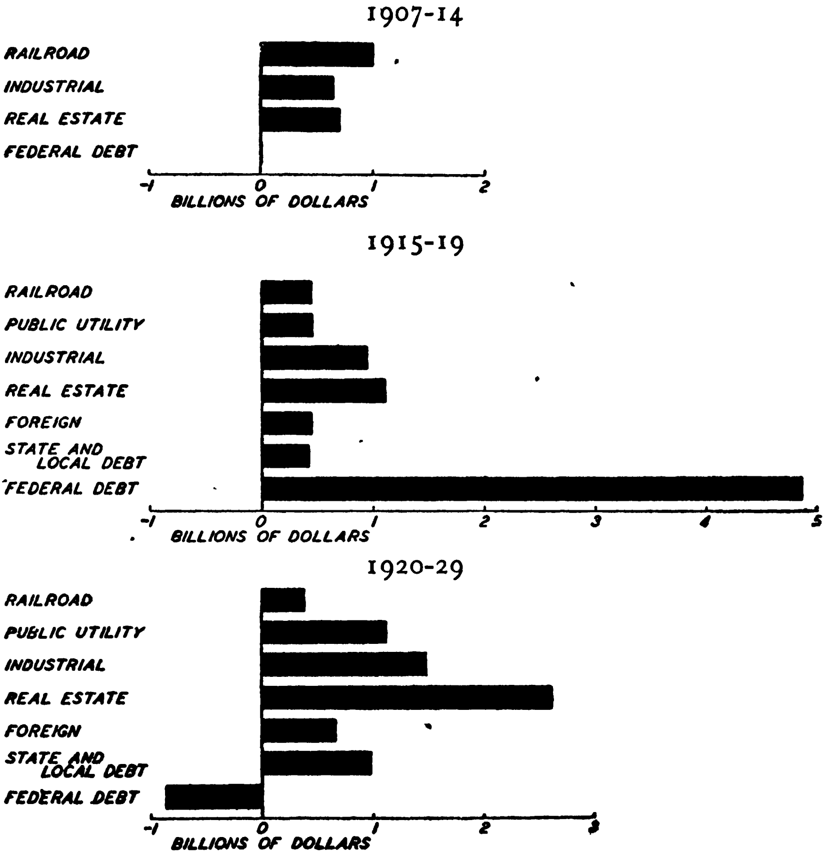
[11] This figure represents net new investments, allowance having been made for repayments, refundings, and sinking fund payments. The earlier figure also makes allowance for estimated repurchases *by* foreigners.

on this page reveals in a rough way the relative magnitude of the different investment outlets in each of the three periods which we have been considering, and also shows clearly the striking shifts that have occurred in the different types of financing over the 23-year period. For purposes of rough comparison we include in this diagram our estimate for real estate securities and mortgages in each of the periods covered. The chart does not include investment trust issues. The bars in the diagram represent annual average figures.

Summary Picture of Investment Outlets, 1907-29
Annual Averages, by Economic Periods



In the pre-war years the railroads constituted by far the most important outlet. The war period is noteworthy both for the great increase in federal government flotations and the expansion of farm mortgage indebtedness. In the decade of the twenties, industrial and public utility flotations, together with urban real estate, came to occupy the dominant position in the capital market. Liquidation of federal government debt made available large sums for investment in private enterprise.

II. SOURCES OF INVESTMENT FUNDS

Our attention now shifts from consideration of the demand side of the capital market to the sources of supply of capital funds. The ultimate sources of a nation's investment funds are as follows: (1) foreign investors; (2) the money savings of its individual citizens; (3) the undistributed earnings of business enterprises; and (4) bank credit expansion. It should also be noted in passing that formerly a great amount of capital, particularly on farms, has been created without the use of money—simply by devoting labor, in off seasons, directly to the improvement of land and the construction of buildings.

It is impossible to make a statistical analysis of the sources of investment funds for the whole period under review. No comprehensive series of data with respect to all the sources of investment funds are available even for recent years; and in some cases it is impossible to make any estimates. There are data with respect to the volume of individual savings for certain years only. Since 1909 we have annual data on the surplus of corporations; but we do not know the extent to which capital expansion has been financed by means of excessive replacement funds or from ordinary operating income. For a considerable period of years we have rough estimates of the net inflow, or outflow, of funds from abroad. But there is no means of gauging the extent to which bank credit expansion has provided the funds required for capital construction. Accordingly, the analysis in this section will not be essentially quantitative in character. The purpose is rather to indicate the primary sources of investment funds at different periods, and to reveal the major shifts which have occurred during the course of our history.

A. Foreign Sources

In colonial times there was a chronic dearth of liquid funds for the purposes of capital expansion. The relatively few "capitalists" among the colonists as a rule found it necessary to use all their funds in their own enterprises. The savings of individual artisans and small concerns were meager. Bank credit facilities were almost entirely lacking. In consequence, it was necessary to look to the mother country for liquid funds as well as for actual tangible forms of capital equipment. Notwithstanding the constant inflow of foreign funds in the form of loans and trade credits and the cash brought in by the stream of immigrants, the supply of liquid capital remained so small in comparison with the demand that interest rates were extremely high. Accordingly, there was an insistent demand for the issuance of bills of credit by the colonial governments—to provide the necessary "capital" for colonial enterprise. The disastrous experience with such colonial bills and the efforts on the part of the British government to restrict their use was of importance perhaps equal to the taxation issue in bringing about the break with the mother country.

The Revolutionary War was financed mainly by means of irredeemable paper money. The government issued so-called bills of credit for use in meeting its financial obligations—these bills ultimately depreciating almost to zero. Some funds were, however, derived from internal loans, and some foreign credits were also obtained. Meanwhile, the procurement of foreign funds for private enterprise in this country practically ceased.

The flow of foreign capital to the United States remained at a low level until after the Napoleonic era. While the establishment of a new currency and banking system in 1791 paved the way for a resumption of foreign lending, the ensuing wars in Europe precluded any large interest in American financial development for the next 25 years.

After 1815 the inflow of capital was quickly resumed; and it continued to expand irregularly throughout the century. It assumed very large proportions during the so-called period of internal development, under state auspices, in the late twenties and early thirties.

Checked by the depression and wholesale defaults of the late thirties, the inflow of foreign funds was not again resumed on a large scale until the fifties. It reached a new high in the boom period of 1869 to 1873. In the depression of the seventies, when many southern states and various American railways were defaulting on their interest payments, foreign investment in American securities and properties dwindled to small proportions. In fact, with the exception of temporary revivals in 1879-80 and 1886-90, it remained at low levels until the late nineties, and in some years foreign liquidation exceeded new foreign investment.

The period of the early nineties was marked by railway reorganizations and federal treasury difficulties that were not reassuring to foreign capitalists. However, in 1897, when there was a marked speeding up of industrial activity and a general restoration of confidence on the part of the investing public, the tide again turned toward the United States. With minor interruptions this continued down to the outbreak of the World War—though it will be recalled that there was a counter-flow of American funds abroad, as American capitalists were now beginning to share actively in foreign ventures all over the world.

During the World War, the flow of funds was predominantly from the United States. Foreign liquidations of securities and properties called for large payments abroad to former owners, in addition to the loans made to foreign governments and corporations by American investors and by the government of the United States. By the close of 1919 foreign holdings of all kinds had been reduced from the pre-war total of 7.2 billion dollars to about 4 billions.

As the post-war period progressed, a considerable amount of foreign capital was again invested in the United States. It was sent here in part to avoid the heavy tax burdens and the effects of political and economic changes which threatened the security of capital in many countries of Europe. In part it came to share in American prosperity, particularly in stock market profits.[12]

B. Individual Savings

Throughout our earlier history the volume of individual money savings was very meager. In the colonial period, as already indicated, there was little available money for investment. Foreign trade, ship building, and profiteering yielded large profits to enterprising spirits, and some of these earnings became in due course available for the development of internal trade and industry.

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[12] See Cleona Lewis, *America's Stake in International Investments*, for detailed analysis of the international financial relations of the United States.

After 1790, individual savings—in the northeastern states—gradually increased, and the funds required for the financing of public works and railroads in the thirties and forties were obtained in part from local investors. These were principally of the merchant class "ranging from the small country storekeeper to the wealthy metropolitan merchant importer. . . . There were others . . . as well: retired farmers or merchants; widows of substance; children who had inherited well; landed proprietors who had picked up public securities; successful speculators in stocks; and a considerable body of small savers in town and country."[13] Insurance and savings institutions, which had their beginnings during this period, helped to mobilize individual savings and render them available in the "market." Throughout this period, however, the supply of investment money was wholly inadequate; hence the constant demand for foreign funds, for government aid to private enterprise in the form of loans and subsidies, and for the expansion of bank credit facilities.[14]

In the period of rapid industrial development after the Civil War the volume of investment funds available in the "capital market" expanded steadily. At the same time, the growth of corporations necessitated the assembling of large aggregations of capital funds. This period naturally saw the development of investment banking institutions designed to bridge the gap between individual and institutional investors, on the one side, and borrowing enterprises on the other. By the beginning of the twentieth century the supply of funds seeking employment through the intermediation of the investment market had become of genuine importance.

In the first 15 years of the new century there was a rapid increase in the volume of individual savings. These years were marked by a phenomenal growth of large-scale enterprise and an accompanying increase in national wealth and income. It has been described, not altogether inaccurately, as an era of "swolien fortunes." In any case, the developments of this period served greatly to expand the flow of funds from individual savings through investment channels.

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[13] Joseph S. Davis, *Essays in the Earlier History of American Corporations*, Bk. II, p. 298.

[14] See p. 24.

The profits of the war period further expanded the volume of funds available in the investment market. But, as we have noted in the first section of this chapter, the bulk of these funds was devoted to the purchase of government securities and the financing of the war. It was not until after the financial readjustments of 1920-21 that the investment market again returned to what may be called a normal condition.

Between 1922 and 1929 the money savings of individuals showed a great increase. Annual figures are not available, but estimates indicate that the total of *money savings* increased from perhaps 8 or 9 billion dollars in 1923-24 to approximately 15 billions in 1929.[15] This was a period in which the general level of income was rising and in which there was a very marked increase in the number of large incomes—both of which factors made it easier to set aside for investment purposes a larger proportion of the total income.[16]

C. Undistributed Business Earnings

A considerable part of the funds required for capital expansion is derived directly from the earnings of business organizations. Indeed, it has at times been one of the principal sources of funds for business expansion. Under the system of individual and partnership enterprise which characterized all our earlier history the process simply involved using current business receipts for purposes of expansion—the individuals and partners taking out what was deemed necessary for their personal requirements and leaving all the rest in the business. Before the days of systematic accounting and income tax calculations, business concerns seldom had any very accurate idea as to the extent to which capital expansion was being financed from internal sources.

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[15] See Harold G. Moulton, *The Formation of Capital*, pp. 141-42.

[16] This trend is often denied by individuals who base their conclusions upon figures showing actual physical capital construction. They assume that all money savings are automatically devoted to the construction of new capital goods and that hence figures showing the amount of capital construction also perforce show the amount of money savings. As we have elsewhere shown, a substantial part of the money savings of individuals in the twenties did not eventuate in new capital construction. The same phenomenon, as we shall see in the ensuing chapter, has been in evidence in the thirties.

For recent decades we have reasonably satisfactory figures covering the changes in the surplus accounts of corporations.[17] The annual figures from 1909 to 1929, in millions of dollars, are as follows:[18]

Year	Surplus	Year	Surplus	Year	Surplus
1909	1,296	1916	4,939	1923	2,432
1910	1,151	1917	4,732	1924	1,463
1911	690	1918	1,986	1925	2,851
1912	1,246	1919	4,330	1926	2,223
1913	1,400	1920	1,397	1927	996
1914	585	1921	−2,685	1928	2,388
1915	2,117	1922	1,676	1929	2,238

Undistributed earnings in addition to those shown by the surplus account are used in financing capital expansion. The common assumption is that the change in the surplus precisely reflects the amount of income remaining after deducting all costs (including depreciation) from the sale value of the product and after paying dividends. But if excessive provision is made for depreciation[19] or if hidden reserves are created, as has often been the case, the surplus account does not fully reflect the amount of undistributed earnings. Moreover, capital outlays are often charged directly to operating expense and are thus included as a part of the cost of producing the current year's output. No figures are available showing the amount of capital construction financed by these methods, and it is not possible to make even approximate estimates.

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[17] It should be borne in mind that an increase in the surplus account of a corporation does not necessarily represent cash accumulation. It is merely a bookkeeping statement reflecting the change which has occurred in the corporation's net position—resulting from undistributed earnings and from changes in the book value of assets.

[18] See Maurice Leven, Harold G. Moulton, and Clark Warburton, *America's Capacity to Consume*, p. 109.

[19] Since the establishment of the corporate income tax the accounts are carefully scrutinized, but even so the allowances granted may exceed the actual rate at which the property has depreciated.

D. Bank Credit

One of the most important sources of business capital is found in the expansion of credit currency. In the colonial period, as has already been indicated, resort was had to the issue of government bills of credit. Under the Constitution the states were forbidden to issue bills of credit, and thereafter banking institutions were looked to as a source of liquid funds.

Prior to the Civil War bank credit provided a substantial part of the liquid funds required for capital expansion. In addition to the First and the Second Bank of the United States, state banking systems and a large number of private unincorporated banks were organized. In a considerable part of the country these banking institutions extended credit with abandon and failed to maintain adequate specie reserves. They manufactured irredeemable credit currency which was made available for nearly every type of enterprise, much of which was of a highly speculative character. Although many of these banks eventually went bankrupt, causing disastrous financial losses, in the meanwhile some of those who had borrowed the funds had been able to organize and develop business enterprises embodying real capital.

Credit expansion continued to be an important source of business capital under the national banking system. The gradual evolution of an intricate commercial banking system and the effective mobilization of reserves made possible a great expansion of bank credit over the years without abandonment of the principle of convertibility into cash—except during occasional periods of crisis. The process by which the banking system manufactures credit currency is so well known that it need not be discussed here.[20]

The commercial banks furnished funds for fixed as well as for working capital purposes. Credit extensions for fixed capital purposes were made in part through the purchase of securities—the reports of both national and state banks, for any date one may care to choose, showing large holdings of bonds. A substantial percentage of bank loans has also been devoted to fixed capital purposes—though nominally made on a short-term basis.

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[20] For an extended exposition of the process, see H. G. Moulton, *Financial Organization and the Economic System*, Chap. XX.

In the period before the Civil War such fixed capital loans were primarily connected with agriculture, but in the latter half of the nineteenth century they became quite as extensive in the field of industrial enterprise. A thorough analysis of the situation in 1916 revealed that approximately 50 per cent of all the loans made by national and state banks and trust companies was devoted to intermediate or long-term investment purposes. With investments in securities included, approximately two-thirds of the credit extended by the commercial banking system went for fixed rather than for working capital purposes.[21]

After the World War, however, the supply of investment money became so large that it was no longer necessary for most business enterprises to look to the banks for long-term capital funds. As we have noted in the foregoing section, in the decade of the twenties funds drawn from the investment market were used to reduce bank loans on a large scale. The supply of investment money came to exceed the demands of business for purposes of capital expansion.

Bank credit expansion has served to accelerate economic growth. The economic significance of bank credit expansion is to be found in the fact that it permitted expansion of business enterprise even though money savings were not at the time available. Instead of having to wait upon the accumulation of investment money, business men, through the use of credit, could proceed at once to the construction of new capital. The resulting expansion in productivity served to generate increased income and thus to make possible the eventual liquidation of the credit. It should be borne in mind in this connection that, although each particular credit advance had to be liquidated in due course out of savings, the continuous creation of new credits served to provide a constantly expanding total supply of funds for business purposes—funds which would not otherwise have been immediately available.

While the expansion of bank credit has often been too liberal, leading to subsequent losses, the rate of our industrial progress throughout the greater part of our history would have been much slower, in the absence of bank credit expansion, than was actually the case.

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[21] H. G. Moulton, "Commercial Banking and Capital Formation," Pt. II, *Journal of Political Economy*, Vol. XXVI (1918), pp. 638-63.

Many economists have contended that the use of bank credit for purposes of capital expansion does not obviate the necessity for concurrent *saving*—using the term saving in the sense of restricting consumption. They argue that instead of *voluntary* saving for the purpose of accumulating funds for capital expansion, the use of bank credit for the purpose forces *involuntary* saving. It is held that the result of the expansion of bank credit is merely to raise the general level of prices, and that since money wages and most other income remain the same, the *real* purchasing power of the masses is restricted. The expansion of capital thus appears still to have been at the expense of consumption.

This analysis completely overlooks the dynamics of the process. It fails to note that the rate of capital formation would be less rapid if business enterprisers had to wait until money savings were first accumulated. It thus fails to see the effects of accelerating capital expansion upon productivity and the volume of national income. Thus it is possible to increase the supply of capital goods without an antecedent or concurrent restriction of consumption. The truth is that the accelerated capital expansion and increased productivity result in an increased output of both capital goods and consumer goods. Thus real wages are increased. The history of capital expansion and wage and price trends in the United States affords no support for the theory that bank credit expansion merely means *involuntary* saving. Nor do the facts support the thesis that saving in the sense of positively reducing consumption is essential to the formation of capital.[22]

III. CAPITAL FORMATION V. SECURITY FLOTATIONS

It has usually been assumed that all of the funds derived from the sale of securities are employed in the construction of new capital and hence that the volume of security issues in any period affords a measure of the amount of actual new capital formation. The truth is that there is little correlation between the volume of security flotations and the amount of real capital construction.

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[22] See Moulton, *The Formation of Capital*, pp. 37-43.

There are two reasons for the divergence between security flotations and capital construction. On the one hand, much capital formation is financed from sources other than the security markets. As has been noted in the preceding section, no inconsiderable part of the funds required for business expansion throughout our history has come from undistributed business earnings and from bank credit expansion. Such funds have been used both for the provision of working capital and for the construction of plant and equipment.

A second reason for the divergence is that a substantial proportion of the funds raised by the flotation of securities may be used for purposes other than the employment of labor and materials in the building of new plant and equipment or in the construction of houses, etc.

The employment of such funds for purposes other than the creation of physical capital is explained by a number of factors. In the case of all security issues, some portion of the proceeds is absorbed in paying the charges of financial middlemen engaged in the underwriting and distributing of securities. The proceeds of federal government loans during war time are used chiefly for military purposes, only a small portion of which involves the construction of physical capital; and the bulk of the funds raised by federal government issues in peace time is usually devoted to purposes other than capital construction. Similarly, a considerable part of the funds raised by state and local government issues may be devoted to meeting budget deficits or to purposes which do not lead directly to an increase in the nation's productive capital equipment.

Funds raised by private corporations are also used for a variety of purposes other than the construction of new plant and equipment. These include such operations as the purchase of materials and supplies, the provision of liquid operating capital, the repayment of bank loans, and the purchase of the securities or properties of existing businesses.

The extent to which security issues have actually been devoted to capital construction has been analyzed by Moody's Investors Service for the period since 1921. The segregation of "productive" from "non-productive" issues is based on the official statements of the borrowers themselves as set forth in the prospectuses accompanying the flotations. The analysis covers the issues of all domestic corporations (including investment trusts), and of state, county, and municipal governments. The extent to which the proceeds of flotations were used for actual capital construction in the years 1921 to 1938 inclusive is shown in the accompanying table.

SECURITY FLOTATIONS AND "PRODUCTIVE" CAPITAL ISSUES, 1921–38[a]
(In millions of dollars)

Year	Volume of New Security Issues (Net)			Volume of "Productive" Issues			*"Productive" as a Percentage of Total*		
	Corporate	Municipal	Total	Corporate	Municipal	Total	*Corporate*	*Municipal*	*Total*
1921...	1,701	1,199	2,900	864	1,199	2,063	50.8	100.0	71.1
1922...	2,211	1,077	3,287	1,335	1,077	2,412	60.4	100.0	73.4
1923...	2,635	1,043	3,678	1,624	1,043	2,667	61.6	100.0	72.5
1924...	3,029	1,380	4,409	1,941	1,380	3,321	64.1	100.0	75.3
1925...	3,604	1,352	4,956	1,824	1,352	3,176	50.6	100.0	64.1
1926...	3,754	1,344	5,098	1,801	1,344	3,145	48.0	100.0	61.7
1927...	4,657	1,475	6,132	1,781	1,475	3,256	38.2	100.0	53.1
1928...	5,346	1,379	6,725	1,495	1,379	2,874	28.0	100.0	42.7
1929...	8,002	1,418	9,420	1,787	1,418	3,205	22.3	100.0	34.0
1930...	4,483	1,434	5,917	1,939	1,434	3,373	43.3	100.0	57.0
1931...	1,551	1,235	2,786	796	1,235	2,031	51.3	100.0	72.9
1932...	325	762	1,087	203	610	813	62.5	80.1	74.8
1933...	161	483	644	106	156	262	65.8	32.3	40.7
1934...	178	803	981	63	381	444	35.4	47.4	45.3
1935...	403	855	1,258	94	430	524	23.3	50.3	41.7
1936...	1,191	735	1,926	379	392	771	31.8	53.3	40.0
1937...	1,222	712	1,934	635	424	1,059	52.0	59.6	54.8
1938...	851	956	1,807	417	647	1,064	49.0	67.7	58.9

[a] Compiled by Moody's Investors Service. For methods employed and the monthly figures for corporations and governmental agencies respectively, see App. A, pp. 349–54.

It is evident that there was a very wide divergence during the twenties between the amount of funds raised in the investment market and the amount of money used for purposes of actual capital construction. During these years the use of the proceeds of flotations for purposes other than capital formation was confined to corporate issues.

The trend during the twenties continued during the thirties. Whereas in the twenties the diversion was confined to corporate issues, after 1932 a large diversion was also found in connection with municipal issues, chiefly as a result of fiscal deficits occasioned largely by relief requirements. It will be seen that in the years of acute depression more than 50 per cent of the proceeds of municipal issues was diverted to other than directly productive purposes. As the federal government assumed a larger proportion of the burden of relief, and otherwise enlarged its aid to the local governments, this percentage showed material decline. However, even in 1938 only two-thirds of the funds derived from the flotation of municipal issues was devoted to the construction of new plant and equipment.

The percentage of corporate issues devoted to the expansion of plant and equipment varied considerably after 1929 but averaged well below 50 per cent. The funds were used principally for such purposes as the repayment of bank loans and the acquisition of the outstanding securities of other corporations.[23]

It should be added here, and carefully noted, that the total of productive issues shown in the table above does not measure total capital formation during the years in question. The table does not cover privately placed corporate issues,[24] nor does it include real estate and mortgages, or other non-corporate financing. Moreover, as has already been pointed out, the construction of new capital may be financed without resort to security issues in the capital market—from undistributed earnings and from bank loans. Since our primary concern is with the situation in the "securities markets," no effort will be made here to measure the extent of actual capital formation.[25]

RECAPITULATION

The history of the American capital market from early times to the beginning of the depression of 1929 may be summarily recapitulated as follows. Throughout the nineteenth century, and even in the World War period, the volume of individual and corporate savings in the United States was altogether inadequate to provide the liquid funds required for capital expansion. The deficiency was made good from two sources—foreign funds and bank credit expansion.

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[23] The data on p. 136 indicate that there was little increase in working capital from 1926 through 1929.

[24] For discussion of the private placement of corporate issues, see pp. 206-08.

[25] The figures of "productive" capital issues here given differ materially from the physical capital formation data compiled by Simon Kuznets of the National Bureau of Economic Research. Kuznets' data are intended to cover all physical capital formation irrespective of how it is financed; in fact he is not concerned at all with sources of funds or the financing problem. The Moody data are intended to indicate only the extent to which funds derived from security flotations have been used to create physical capital. As we have seen, funds for capital formation are derived from numerous sources other than the investment market.

After the World War the growth of national income, and particularly the increase in the number of large incomes, resulted in a very great increase in the annual savings of the American people. In consequence, the volume of available investment money became not only sufficient to provide all of the funds required for productive capital expansion in the United States but much more than sufficient. It is unnecessary to present statistical data in support of this statement. It is evident from such facts as the rapidity with which new issues of all kinds and descriptions were sold; the huge flotations of investment trust and similar issues (encouraged by the redundant supply of investment money); the aggressive efforts put forth to induce foreign borrowers to place issues in the American market; and the rising prices and decreasing yields of equity securities.[26]

The World War period may thus be regarded as marking a transition era in the financial economy of the United States. The great increase in the internal supply of investment money not only eliminated our dependency upon foreign sources of funds but made us a genuine competitor of London, Paris, and Amsterdam as a supplier of world credit. The changes resulting from the great depression will be analyzed in the ensuing chapter.

[26] It is true that yields on high-grade bonds did not fall; but this is readily explained by the shift from bonds to equities.

CHAPTER II

THE LONG-TERM CAPITAL MARKET, 1930–39

The outstanding impression given by the data presented in the preceding chapter is one of continuous and accelerating expansion. The range of outlets for investment money was constantly widening, and there appeared to be little difficulty in finding remunerative employment for a continuously increasing volume of investment money. To be sure, shifts were occurring in the relative importance of the various investment outlets. Some fields of investment showed, at certain periods, an actual decline and others a retarded rate of growth; but at the same time a phenomenal expansion was taking place in other lines. In the decade of the twenties, for example, a great increase in state and local government borrowing offset the liquidation of federal indebtedness; while railroad issues were at a lower level than in former years, industrial and public utility flotations, real estate financing, and loans to foreign countries assumed unprecedented proportions.

The decade of the thirties presents an extraordinary contrast. Outlets for foreign issues have almost disappeared, and flotations by domestic business enterprises have been at the lowest level in decades. As we note elsewhere, the prevailing stagnation has given rise to great uneasiness with respect to the whole future of the capitalistic system, and also to various suggestions for remedying the situation. Our purpose in this chapter is merely to present the essential facts with respect to the trends in the long-term capital market during this decade. In the ensuing chapter, we shall indicate the developments which have occurred in the field of short-term credit, which are closely related to the factors involved in the long-term capital market. The larger economic implications of the trends under consideration will be discussed in Chapter XV.

I. OUTLETS FOR INVESTMENT FUNDS

In analyzing the trends in the long-term capital market during the thirties we shall consider both the changes which have occurred in the aggregate volume of new security issues and the shifts in the relative importance of the different classes of economic activity as outlets for investment money. As we shall show, the changes which have occurred are of an extraordinary character. Consideration will first be given to the aggregate volume of investment offerings in the thirties, as compared with the twenties.

The total volume of securities and mortgages issued in the thirties was on the average less than 60 per cent as large as in the twenties. The annual average in the years of acute depression, 1931 to 1933 inclusive, was only a little over 3 billion dollars, as compared with an average of nearly 10 billions for the years 1926 to 1929. The average annual volume of all classes of issues, including real estate *mortgages*, amounted during the twenties to about 8 billion dollars, and in the thirties to only about 3.5 billions.[1]

The contrast between the twenties and the thirties appears the more striking when only *private* issues are taken into account. In order to show the change which has occurred in the private capital market it is best to compare the three years 1926 to 1928 with the three best years of the post-depression period, 1936-38. In the former period the total volume of *private* issues, including real estate mortgages, was 24 billions, and in the latter period only about 4 billions.

The chart on page 33 shows the volume of new capital issues of various classes floated annually during the years 1930 to 1938 inclusive. Purchases of foreign securities, except for the year 1930, show up as minus quantities—indicating that repayments were in excess of new loans. It is of interest to note in passing that the volume of flotations in 1930 was larger than in 1929 in the fields of railroads and public utilities.

The striking feature of this period is the overwhelming importance of the federal government as an outlet for investment funds. Whereas in the twenties the federal government retired an average of 860 millions of public debt annually, thereby in-

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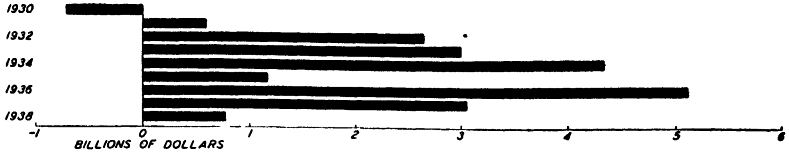
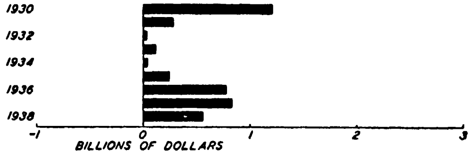
[1] The data are based upon the analysis in App. A. In calculating the aggregate volume of issues in the twenties and thirties respectively, minus quantities in any field are not subtracted from the total. This is because repayments should be looked upon as an addition to the supply of available investment money rather than as a decrease in the volume of securities offered for sale.

Principal Security Outlets for Investment Funds, 1930-38[a]

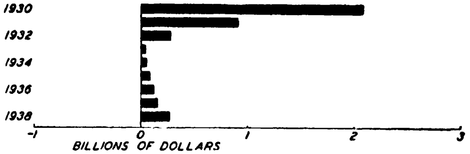
I. NET ANNUAL CHANGES IN FEDERAL DEBT



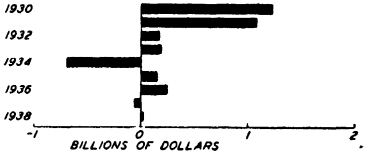
II. INDUSTRIAL ISSUES



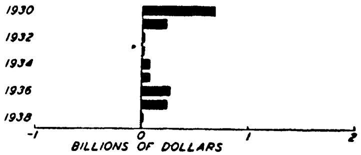
III. PUBLIC UTILITY ISSUES



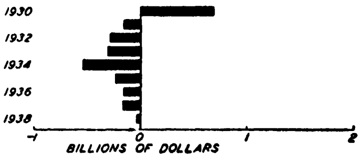
IV. NET ANNUAL CHANGES IN STATE AND LOCAL GOVERNMENT DEBT



V. RAILROAD ISSUES



VI. NET PURCHASES OF FOREIGN SECURITIES



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[a] For data, see App. A, pp. 340-48. The figures include publicly announced private placements.

creasing the supply of funds available for other purposes, in the thirties the national government floated new securities greatly exceeding the aggregate of all other types of security issues. In 1936, the year of maximum increase in federal debt, government flotations were more than three times the volume of all other issues combined.

State and local government indebtedness showed little net change in the period after 1931. New issues were comparatively small in number, and in some years the retirements exceeded the new issues. This relatively static position is due to two facts: (1) .the curtailment of some of the forms of state and local government enterprises which flourished in the twenties; and (2) the transfer of a substantial part of the relief burdens to the federal treasury.[2]

Railroad flotations decreased almost to the vanishing point during the years of acute depression. In the two good years 1936 and 1937 they remained very much below the average level of the twenties. Public utility issues reached negligible proportions in the depth of the depression, and in 1936 and 1937 the volume was only about 10 per cent that of the late twenties. The volume of industrial issues in the good years 1936 and 1937 was approximately 41 per cent of the average volume in the late twenties.

Real estate operations virtually disappeared as an outlet for investment money during the thirties. In fact, since 1930 there has been a reduction in the volume of outstanding mortgages to the extent of 9 or 10 billion dollars. This does not mean that there were no new real estate mortgage or security flotations during these years, but only that the volume of new issues was greatly exceeded by the liquidation of old obligations, chiefly as a result of foreclosures.

Since 1932 new real estate bond flotations have averaged only about 5 million dollars annually. Since 1934 there has been a substantial growth of home *mortgages* guaranteed by government agencies. The annual volume of mortgages guaranteed by the

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[2] Mention should here be made of the fact that in recent years there has been a tendency for state and local governments to finance "self-liquidating" improvements through the creation of semi-public bodies, the obligations of which are not counted as a part of the public debt. In some states these obligations have reached substantial proportions.

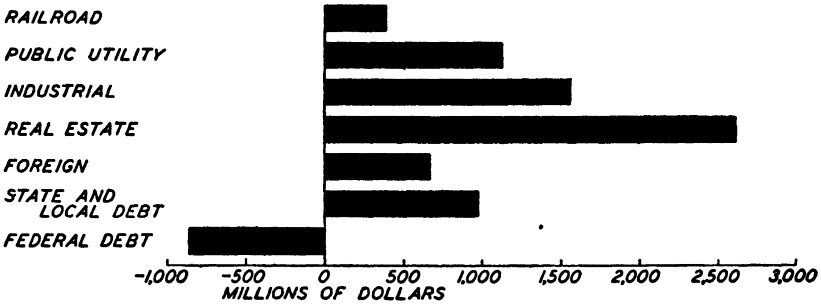
Federal Housing Administration has ranged from 35 millions in 1935 to 376 millions in 1938 and to 580 millions in 1939. Other types of government aid for real estate development have been comparatively unimportant.

II. SHIFTING CHARACTER OF INVESTMENT OUTLETS

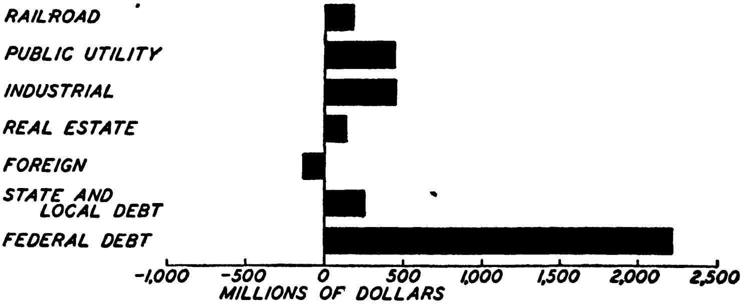
In the accompanying chart we indicate the relative magnitude of the different investment outlets in the period 1930 to 1938, as compared with the decade of the twenties. The figures given include real estate mortgage and security issues. The chart reveals the striking shifts which have occurred in the character of investment outlets during the course of the two decades.

CHANGES IN INVESTMENT OUTLETS, 1920-29 *v.* 1930-38

ANNUAL AVERAGES, 1920-29



ANNUAL AVERAGES, 1930-38



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[a] For detailed figures, see App. A, pp. 340-48.

NEW CORPORATE ISSUES, BY INDUSTRY GROUPS, 1926–JUNE 30, 1939[a]

(In millions of dollars)

Calendar Years	Railroads	Public Utilities	Iron, Steel, Coal, Copper, etc.	Motors and Accessories	Other Industrial and Manufacturing	Oil	Land, Buildings, etc.	Rubber	Shipping	Investment Trusts, Trading, Holding, etc.	Miscellaneous	Total
1926....	285	1,355	82	139	426	255	703	42	4	52	326	3,669
1927....	431	1,867	64	119	452	256	622	13	11	151	516	4,502
1928....	313	1,489	196	73	679	184	708	56	3	772	737	5,210
1929....	379	1,661	229	84	1,105	267	510	90	26	2,060	1,465	7,876
1930....	690	2,082	166	43	511	219	243	34	5	233	229	4,455
1931....	226	906	107	13	81	15	128	—	2	4	63	1,545
1932....	13	274	4	—	11	—	8	2	—	1	12	325
1933....	12	34	2	1	106	2	1	—	—	1	[b]	159
1934....	72	49	1	—	24	1	[b]	1	—	19	11	178
1935....	73	84	113	14	76	10	2	—	—	2	30	404
1936....	267	124	149	25	213	53	12	10	1	13	326	1,193
1937....	200	149	129	22	313	184	10	3	—	[b]	146	1,156
1938....	16	271	157	—	139	212	6	37	[b]	4	12	854
1939, to June 30	34	21	9	[b]	78	44	1	[b]	—	1	21	209

[a] As compiled by the *Commercial and Financial Chronicle*. These data do not include the issues of foreign corporations sold in the American market. They include publicly announced private placements.

[b] Less than $500,000.

As a further means of indicating the great changes which have occurred in recent years in the outlets for investment funds, we present on page 36 a table showing the major sub-classes of private capital issues from 1926 to June 30, 1939. It will be seen that in every class the volume in the years 1935 to 1938 was much below the level of the late twenties.

III. SUPPLY OF INVESTMENT FUNDS

The low level of security flotations in recent years might conceivably be attributable to a dearth of investment funds. Accordingly, consideration must now be given to the trends with respect to the supply of investment money, including individual and corporate money savings, the inflow of funds from abroad, and the expansion of bank credit for investment purposes. While it is impossible to present other than rough estimates with respect to the supply of investment money, enough information is available to afford a general indication of the situation.

First, it is evident that the supply of investment funds has been materially increased by importations from abroad. Whereas in the twenties American investors were buying large quantities of foreign securities and properties, since 1933 the flow has been reversed. Foreigners have been repaying obligations to the United States; repurchasing issues previously placed here; investing money in American securities; and also increasing their deposits in American banks. Much of this flow of funds to the United States is presumably of an impermanent character, having been induced by unsettled conditions abroad. The annual figures for recent years, in millions of dollars, are as follows:[3]

1934	868
1935	1,892
1936	1,335
1937	1,482
1938	838

Second, bank credit has continued to be a source of funds, especially in connection with government issues. The total amount of bank credit outstanding showed a very sharp decline in the early years of the depression. Since 1933, however, the volume of outstanding loans and investments has increased. A large part of this increase is attributable to the purchase of investment securities, particularly governments. The increase in commercial bank holdings of investment securities since 1933 is shown in the accompanying table.

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[3] Compiled from U. S. Department of Commerce, *The Balance of International Payments of the United States, 1937*, pp. 112-13, *1938*, p. 2. The figures include the item called "other transactions and residual," which in large part undoubtedly represents capital movements (the same, p. 18).

HOLDINGS OF INVESTMENT SECURITIES OF NATIONAL AND STATE (COMMERCIAL) BANKS[a]
(In millions of dollars)

Fiscal Year Ending June 30	Direct Government Issues	Guaranteed Government Issues	Other Securities	Total
1933	7,245	—	6,573	13,818
1934	9,823	598	6,364	16,785
1935......... ..	10,555	1,896	6,868	19,319
1936	12,650	2,282	7,643	22,575
1937	12,058	2,352	7,201	21,611
1938...	11,400	2,290	7,008	20,698
1939...........	12,189	3,127	7,174	22,490

[a] Data are from Annual Reports of the Comptroller of the Currency for the years indicated.

It will be seen that the holdings of both classes of government issues increased greatly—the two groups together doubling between 1933 and 1939.

Third, there has been a considerable volume of corporate savings, available either for internal expansion or for investment in securities. In showing the amount of corporate savings for the present purpose it is necessary to exclude the deficits of corporations having no net income—since such deficits have no bearing on the amount of savings of the profitable corporations. The annual savings of all profitable corporations were 793 millions in 1935 and 619 millions in 1936.[4]

Fourth, individual savings continued on a substantial plane throughout the thirties. No statistical series with respect to the volume of individual savings has ever been compiled. However, an estimate for the year 1936, based on some 42,000 family budgets, has recently been made under government auspices. This study indicates that the aggregate savings of individuals in 1936 were approximately 6 billion dollars. This figure, however, may somewhat overstate the volume of funds available for investment.[5]

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[4] These figures are derived from the income data in *Statistics of Income for 1935* and *for 1936*. Figures for later years have not as yet been published. These figures take account only of undistributed earnings, and exclude capital gains or losses as reported for tax purposes. See pp. 116-17.

A part of these individual savings was invested through the medium of savings institutions; some was used in the direct purchase of securities; some was held in the form of idle cash; and some was employed directly in the development of private properties such as houses. The volume of investment made through insurance companies and banks for the years since 1933 may be roughly indicated by the premiums of life insurance companies, the increase in mutual savings bank deposits, and the growth of the time deposits of commercial banks. Because of the holocaust of bank failures the banking figures for earlier years are useless for our present purpose.[6] The figures in the following table are in millions of dollars.[7]

	1934	1935	1936	1937	1938
Insurance savings	1,124	1,479	1,662	1,647	1,613
Deposits in mutual savings banks	120	135	180	114	108
Savings and time deposits of commercial banks	585	792	711	876	145
Total	1,829	2,406	2,553	2,637	1,866

Life insurance savings in recent years have been larger in the aggregate than they were in the late twenties—the figure for 1929 being only 1,455 millions. In the years 1932 and 1933 they fell to 655 and 705 millions. Savings and time deposits were also much larger than in the pre-depression years. In the last few years substantial investments have also been made through building and loan associations; but the data available are not sufficiently satisfactory to be used. A considerable volume of individual savings has also been invested in United States Savings Bonds. There is no adequate means of showing the amount of money savings which has been directly invested in private property or in securities. It is known, however, that large direct investments of this kind have been made, particularly by those in the higher income groups.

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[5] National Resources Committee, *Consumer Expenditures in the United States* (1939). The method employed was to subtract total expenditures from total income in the various income groups covered. It should be noted that "savings" include payments on houses; but that no deduction is made for depreciation on owner-occupied homes. While the figures, therefore, do not measure the net increase in the *assets* of individuals, it remains true that *funds* which are not spent for consumer goods are available for investment purposes.

[6] Inasmuch as commercial bank deposits increase as a result of loan expansion, they cannot be used as a measure of savings. To some extent the increase in time and even in savings deposits is a reflection of financial factors rather than of an increase in real money savings. However, if we include all savings and time deposits and exclude all commercial accounts, we have a rough indication of the volume of savings invested through banking institutions.

[7] The insurance figures represent premium and other incomes, less operating expenses and policy payments. Insurance data are from annual volumes of the *Spectator Yearbook*. Banking data are from Annual Reports of the Comptroller of the Currency, for the years indicated.

Taking into account the estimated volume of individual funds and corporate funds available for investment, and the inflow of liquid capital from abroad, the volume of funds available for investment in the last few years has evidently been in the magnitude of at least 7 to 8 billion dollars. If the inflow of funds from abroad be eliminated—as a temporary phenomenon—the volume of investment money may be estimated at something like 6 to 7 billions of dollars. In addition, a huge volume of bank credit is available for the purchase of securities; moreover, an indeterminate amount of such credit has been employed in recent years in purchasing securities, particularly government issues.

The volume of investment funds has been greatly in excess of the volume of new security flotations. In the depressed years, 1931 to 1935 inclusive, the aggregate volume of new capital issues, public and private, ranged from 1.7 to 4.5 billion dollars. In the biggest year, 1936, the aggregate volume amounted to only 6.6 billions, of which 5.1 billions were federal government issues.

Corporate flotations ranged during the years 1932-35 from 159 millions to 404 millions. In the best years, 1936-37, the volume was less than 1.2 billions a year. Even in the difficult year 1931 the volume of issues had aggregated 1.5 billion dollars. The annual figures, classified by types of security, are shown in the table on page 41.

The savings effected through life insurance companies alone greatly exceeded the aggregate volume of corporate flotations, including stocks, in every year after 1931. In 1932 and 1933, when insurance savings were at the lowest ebb, they were many times as large as the volume of bond and note issues, which alone are eligible for investment by insurance companies. In the year 1933 the largest insurance company had savings available for investment of an aggregate amount more than three times the volume of new corporate bond and note issues. Two other companies had nearly double the amount. The aggregate volume of bond and note issues in 1934 was appreciably less than the volume of savings of each of the two largest companies. Even in the best years, 1936-38, the total volume of bond and note issues was not greatly in excess of the savings of the three largest companies, and it was less than half the savings of all insurance companies.[8] In the first six months of 1939, again, corporate bond issues were back to the level of 1935. Stock issues showed a corresponding decline.

NEW DOMESTIC CORPORATE SECURITIES ISSUED ANNUALLY[a]
Excluding Refunding Issues
(In millions of dollars)

Calendar Year	Bonds and Notes	Preferred and Common Stocks	Total
1931	1,234	311	1,545
1932	305	20	325
1933	40	119	159
1934	143	35	178
1935	335	69	404
1936	849	344	1,193
1937	754	402	1,156
1938	789	65	854
1939, to June 30	149	60	209

[a] Compiled from the *Commercial and Financial Chronicle.*

The combined savings made by insurance companies and savings institutions (see table on p. 39) in 1936-37 were more than three times the volume of corporate bond and note issues.

Confirmatory evidence of the superabundance of investment money in recent years, as compared with investment opportunities, is found in the trends of interest rates on bonds and in the yields on high-grade preferred and common stocks.[9] The redundance of investment money is also apparent from the quick over-subscriptions of high-grade investment issues and from the practice of so-called direct placements, without the formalities of public offering. It is evident in the practices of insurance companies of discouraging annuity contracts, of lessening commissions to agents, and of raising the rates to purchasers. It is manifest in the restrictions which savings institutions have recently been placing upon the acceptance of deposits, ranging from the outright refusal to open new accounts to limitations on the amounts which will be received in any quarterly period.

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[8] Insurance company data from annual volumes of the *Spectator Yearbook.*

[9] See pp. 63-81.

That this phenomenon is not confined to the larger financial centers is strikingly revealed by the following statement appearing in a Booneville, Iowa, paper:

> There is practically "no sale for money" here. The Booneville Savings Bank is going out of business September 1, 1939. . . . It has $267,000 of its depositors' money and has been asking them to come and get it since May 1939. . . . "The principal reason we are quitting is that we do not know what to do with your money," depositors were told in letters when the decision to liquidate voluntarily was made. The bank has been open every business day in thirty-three years except during the 1933 bank holiday.

The situation which we have described is a reflection not of an exceptional volume of investment money, but rather of the very restrictive amount of new security and mortgage issues. The question must therefore still be raised: In the event of a great revival in the flotation of securities for purposes of economic expansion, would an adequate supply of funds be available?

In aggregate terms, the prospective supply of investment money appears to be adequate for prospective requirements. That is to say, it does not appear likely that in a period of expansion the volume of available funds would fall short of total investment demands. While the present volume of investment money might not be adequate it must be borne in mind that an extensive expansion of production in the capital goods industries would automatically carry with it an increase in aggregate national income. If we may judge by the experience of the past an increase in national income would be accompanied by a more than proportional increase in money savings. The explanation is to be found in the fact that, as national income increases, it becomes easier to save a given percentage, particularly in the higher income levels. If the national income were to increase from the present level of 65 to 70 billions to as much as 80 or 90 billions, the volume of individual and corporate savings might be expected to rise from the present level of around 6 to 7 billions to something like 10 to 12 billions.

In the light of this analysis, it seems altogether probable that the aggregate volume of money savings will be large enough to provide for a capital expansion program of any magnitude which other factors would make possible. A special factor in the present situation, however, has an important bearing on the availability of current money savings for the financing of *industrial expansion* as distinguished from investment in high-grade outstanding securities.

While the aggregate supply of investment money appears adequate, special factors may result in restricting the flow of such funds into *equity* financing. The process of capital expansion requires the raising of funds from stock flotations as well as from bond issues. In fact, because of the greater risks involved, stock flotations must be looked to for the greater part of the capital required in the development of new enterprises. As we show in Chapters VII and VIII, the need for equity financing is particularly great at the present time, because of the dearth of working capital among the medium-sized and smaller corporations, as well as because of prospective requirements for expansion.

Under normal conditions the use of investment funds for the purchase of equities issued with a view to financing business expansion has been governed chiefly by appraisal of the risks involved in relation to the expected return. At the present time, however, the taxation system has come to play a very important role in directing the flow of investment funds. On the one hand, it invites investment money into low-yield, high-grade bonds, especially tax-exempt issues unconnected with private corporate enterprise. On the other hand, the tax system heavily penalizes investments in equities yielding potentially higher rates of return. An analysis of this phase of the capital market problem will be found in Chapter XIII.

CHAPTER III

THE SHORT-TERM MONEY MARKET, 1930-39

Our attention has thus far been focused upon the supply and demand situation in what is known as the long-term capital market. The trends in the short-term money market have been of equal significance. The short-term market is directly affected by factors responsible for changes in the long-term market, and at the same time it is subject to influences of an independent character. Accordingly, if we are to have a complete picture of the capital market situation at the present time, it is necessary to review the significant trends which have occurred since 1930 in the market for short-term funds.

The short-term money market is made up, on the demand side, of business, individual, and public borrowers who wish funds for short-time industrial, commercial, financial, and governmental operations. On the supply side it is made up chiefly of short-term credit agencies, though at times individuals, investment trusts, and business corporations play a considerable role. Institutionally, the market comprises commercial banks, finance companies, and commercial paper houses. With the decline in the amount of commercial paper available in recent years we may say that the market for all practical purposes now includes only the commercial banks.

I. TRENDS IN COMMERCIAL BANK ASSETS AND LIABILITIES

During the last decade the commercial banking system has undergone changes of a wholly unprecedented character. This is best shown by the fluctuations in total earning assets, by the shifts from loans and discounts to investments, and by the changes in the volume and character of deposits.

The aggregate earning assets of commercial banks are now appreciably below the level of 1929. The earning assets of all commercial banks in the United States at the end of each fiscal year from June 30, 1929 to June 30, 1939 are shown in the accompanying table. It will be seen that there was a decline in assets of about 38 per cent between 1929 and 1933. By 1939 they had recovered to about 80 per cent of the 1929 volume—a movement which is more or less in line with the fluctuations in general business conditions.

There has been a striking increase in investments as compared with loans and discounts. As will be seen from the table, the volume of loans and discounts declined not only during the depression years but continued the downward trend until 1935. Moreover, the expansion period of 1936-37 brought only a moderate increase. The present total is less than half that of 1930.

Shifting Character of Commercial Bank Earning Assets, 1929–39[a]
(In millions of dollars)

June 30	Total Earning Assets	Loans and Discounts	Investments		
			Total	Government Obligations[b]	Other Securities[c]
1929	49,148	35,575	13,573	3,845	9,728
1930	48,638	34,565	14,073	3,695	10,378
1931	44,699	29,114	15,585	5,560	10,025
1932	35,962	21,934	14,028	5,925	8,103
1933	30,263	16,436	13,827	7,245	6,582
1934	32,804	15,771	17,033	10,603	6,430
1935	34,774	15,068	19,706	12,716	6,990
1936	38,721	15,715	23,006	15,276	7,730
1937	39,770	17,675	22,095	14,576	7,519
1938	37,543	16,374	21,169	14,089	7,080
1939	39,039	16,549	22,490	15,316	7,174

[a] Compiled from Annual Reports of the Comptroller of the Currency. Includes all national and state banking institutions other than mutual savings banks.

[b] Including both direct and fully guaranteed obligations.

[c] Including obligations of federal government agencies not fully guaranteed, obligations of state and local governments, and all other securities.

The persistently slack demand for commercial bank loans is in part a reflection of the restricted rate of business operations and the relatively low level of commodity prices—that is, as compared with 1929-30. It is also partly due to the continuation of a trend which began in the twenties, whereby businesses have relied less upon short-term borrowings and more upon equity financing—in some cases upon undistributed earnings. This combination of factors has in any case resulted in what appears a perpetual slack in the commercial demand for banking accommodations.

Bank investments in securities, on the other hand, have shown a great expansion. Such holdings declined but little during the depression and then expanded very rapidly in the ensuing years. In consequence, the total in 1939 was some 60 per cent higher than in 1930.

The largest increase in investments has been in United States government obligations. The following table shows for the member banks of the Federal Reserve System the growth of the various types of United States government holdings in relation to total investments during the years 1933 to 1939.[1] We have included contingent obligations in the form of *guaranteed* securities as well as the direct obligations in the form of bills, notes, and bonds. It will be seen that the ratio of all government holdings to total investments has increased from 58 per cent in 1933 to 71 per cent in 1939.

"Member Bank" Investments in Federal Government Issues, 1933–39[a]
(In millions of dollars)

End of Year	Investments in Federal Government Issues					Total Investments	*"Governments" as Percentage of Total*
	Bills	Notes	Bonds	Guaranteed	Total		
1933	1,113	2,049	3,725	—	6,887	11,928	*57.7*
1934	1,030	4,217	4,659	989	10,895	16,122	*67.6*
1935	1,192	5,403	3,905	1,768	12,269	17,810	*68.8*
1936	1,053	4,527	6,060	1,906	13,545	19,640	*68.9*
1937	662	4,277	5,635	1,797	12,371	17,794	*69.5*
1938	286	3,389	7,208	2,340	13,222	18,863	*70.0*
1939, (June 30)	441	2,720	7,786	2,831	13,777	19,462	*70.8*

[a] *Federal Reserve Bulletin*, April 1939 and September 1939.

The relative increase in investments as compared with loans is a reflection of the comparative stagnation of commercial enterprise. The inability of the banks to make commercial loans and discounts in the customary amounts has led them to seek increasingly other forms of earning assets. They have, accordingly, increased their holdings since 1933 in both private and public long-term issues, especially in the latter. The record shows that in the last six years the member banks of the Federal Reserve System increased their holdings of long-term government obligations by nearly 7 billion dollars. Bank funds have thus gone into the long-term investment market to an extraordinary degree.

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[1] Data for all banks are not available. Members of the Federal Reserve System account for roughly 85 per cent of the assets of all commercial banks.

The most arresting phenomenon in banking trends has been the progressive increase in deposits. Whereas earning assets declined heavily from 1929 to 1939 bank deposits showed a substantial increase. Although there was a decline in total deposits from 1929 to 1934—owing chiefly to the wholesale bank failures and the hoarding of cash—the rapid increase in deposits in the succeeding years brought the 1939 total in member banks of the Federal Reserve System 13 per cent above the level of 1929. The volume of deposits in 1939 was roughly 40 per cent above the level of 1934. Deposits are now the largest in our entire history. The accompanying table shows the trend of demand, time, and total deposits since 1929 for member banks of the Federal Reserve System.

DEPOSITS OF FEDERAL RESERVE MEMBER BANKS, 1929–39[a]
(In millions of dollars)

End of Year	Total Deposits	Demand Deposits	Time Deposits
1929	29,793	17,526	12,267
1934	23,971	14,951	9,020
1935	27,715	18,035	9,680
1936	31,399	20,970	10,429
1937	30,553	19,747	10,806
1938	31,965	21,119	10,846
1939, (June 30)	33,511	22,448	11,063

[a] Data from issues of the *Federal Reserve Bulletin.* The deposit figures exclude bank and government deposits.

The progressive increase in both demand and time deposits since 1934 appears the more remarkable in the light of the fact that it has occurred during a period of restricted business activity, and has followed the elimination of interest on demand deposits and a progressive reduction in the rate of interest on time deposits. Indeed, most banks no longer seek savings and time deposits; and as a rule they restrict the amounts they will accept.

The increase in deposits in recent years is the result of a combination of factors. The cessation of hoarding of course played a part in the years following 1933, as did also the recovery of business and the consequent expansion of loans, which resulted in deposits. Similarly, the purchase of government securities by the banks resulted in the creation of deposit accounts. These developments do not, however, explain why aggregate deposits in 1939 were well above the level of 1930; for, other things being equal, one would expect that the substantially higher national income in 1930 would have meant a larger volume of deposits.

The explanation of this phenomenon is to be found in two new factors in the situation. The first is the unprecedented inflow of funds from abroad (See pp. 50-51). The second is the dearth of normally secure and profitable outlets for funds. It is difficult for business corporations and for individuals alike to find satisfactory investments for short-term funds; and at the same time the uncertain future makes it seem wise to maintain a strong cash position. The taxation system contributes to the same result.[2]

II. THE PHENOMENON OF EXCESS RESERVES

An extraordinary accompaniment of the banking and financial trends of recent years has been the accumulation of an enormous volume of unused lending power. The "excess reserves"—i.e. the excess of cash holdings above the legal requirements—have been a source of widespread interest, confusion, and concern. They have been pointed to as evidence that the banks are for some reason unwilling to extend the credits essential for recovery; they have been cited as a source of great potential inflation; and they have been variously attributed to government policy with respect to deficit financing and the depreciation of the dollar, to the gold purchase policy of the United States, and to international disorganization and the accompanying flow of "hot money" to the United States. The explanation of the phenomenon is in fact a complex one involving numerous factors and requiring careful study.

As a preliminary, the trend in recent years with respect to excess reserves should be noted. From 1929 to 1931 the excess reserves ranged from 30 millions to 130 millions. The monthly figures for the period since 1932 are shown in the accompanying table.

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[2] See Chap. XIII.

It will be seen that there was a gradual increase in excess reserves in 1932-33, and a more rapid advance from the beginning of 1934 to July 1936. In the ensuing 13 months there was a very great decline, followed again by a great advance extending until the end of 1939. These changes are a reflection of three factors: increases or decreases in the volume of deposits; fluctuations in the amount of legal reserve funds, which are largely due to changes in the gold supply; and changes in legal reserve requirements. The wide fluctuations during this period are attributable to the second and third factors.

EXCESS RESERVES OF MEMBER BANKS, MONTHLY AVERAGES, 1932–39[a]
(In millions of dollars)

Month	1932	1933	1934	1935	1936	1937	1938	1939
January	35	584	866	2,035	3,033	2,093	1,353	3,484
February	44	417	891	2,237	3,038	2,152	1,406	3,373
March	59	268	1,375	2,065	2,653	1,371	1,524	3,432
April	153	379	1,541	2,026	2,510	1,552	2,071	3,926
May	277	319	1,624	2,298	2,800	927	2,525	4,212
June	234	363	1,685	2,438	2,593	876	2,762	4,246
July	204	436	1,789	2,385	2,907	876	3,026	4,402
August	270	566	1,884	2,636	2,458	750	2,955	4,607
September	346	675	1,754	2,627	1,852	900	2,920	5,198
October	436	758	1,731	2,820	2,043	1,043	3,143	5,490
November	482	794	1,835	3,061	2,219	1,104	3,276	5,259
December	526	766	1,748	2,985	2,047	1,071	3,226	5,011

[a] From issues of the *Federal Reserve Bulletin.*

The most important and persistent factor in creating excess reserves has been the increasing supply of gold. The process by which new supplies of gold increase the legal reserves of the banks is as follows: New gold is first deposited either directly with a bank or at Treasury offices. Since member banks are not permitted to hold gold, they transfer gold received to the Federal Reserve banks in exchange for deposit credits which count as reserves. When the gold is deposited at Treasury offices, the process is more complex, though the result is the same. The owner of the gold receives a check drawn by the Treasury against a Federal Reserve bank, which he deposits with his bank. This bank deposits this check at its Federal Reserve bank, thereby creating a reserve account.

The increase in the supply of gold in the United States is the result of three factors—an expansion of domestic gold production, a huge inflow of gold from abroad, and a decrease in the weight of the dollar. The relative importance of these factors is indicated in the accompanying table which shows, for recent years, the annual production of gold in the United States, the use of gold in the arts, and the net imports or exports of gold.

CHANGES IN MONETARY GOLD SUPPLY, 1930–39
(In thousands of dollars)

Year	Domestic Production[a]	Used in Arts or Recovered from Arts[a]	Total Domestic Increase	Imports[b]	Exports[b]
1930	47,248	15,178	32,070	280,087	—
1931	49,527	5,931	43,596	145,325	—
1932	50,626	*6,490*[c]	57,116	—	446,213
1933	52,842	*5,793*[c]	58,635	—	173,455
1934	108,191	*61,694*[c]	169,885	1,133,912	—
1935	126,324	*32,461*[c]	158,785	1,739,019	—
1936	152,509	*2,908*[c]	155,417	1,116,583	—
1937	169,159	*3,214*	165,945	1,585,503	—
1938	148,600[d]	. . .	. . .	1,973,600[d]	—
1939	159,800[d]	. . .	. . .	3,574,200[d]	—

[a] *Report of the Director of the Mint, 1938*, pp. 33, 35.

[b] *Statistical Abstract of the United States, 1938*, p. 440.

[c] Excess of recoveries.

[d] *Federal Reserve Bulletin*, February 1940, p. 130.

The effect of the devaluation of the dollar is shown in the sharp rise in dollars' worth of gold production in 1934. Since all gold was revalued it is also reflected in the total gold stock. Roughly three-fifths of the increase in production in 1934 is explained by the reduction in the number of grains of gold constituting a dollar. The balance represents a real increase in gold mining, which was stimulated by the increase in the price of gold from $20.67 to $35.00 an ounce. It is interesting to note that the change in the value of the dollar also induced a shift of gold from industrial to monetary uses.

The enormous increase in gold imports since 1933 is attributable to a combination of factors. First, our exports of goods and services have regularly exceeded our imports of goods and services.

At times general financial and credit considerations have been a very important factor. Because of unsettled political and economic conditions abroad, however, few foreign loans have been made by this country, while at the same time some American capital invested abroad has been brought home. At the same time also foreigners have increased their investments in the United States and have sent large amounts of liquid funds to American banks for safe keeping. This flight of capital occurs irrespective of considerations with reference to exchange rates, interest return, or yields on investments—conservation of assets being the prime consideration.

Still another factor in the situation is the gold policy of the United States. In former times all the leading countries maintained what is called a fixed price for gold, at which any amount of gold offered by producers, dealers, or others would be purchased. The breakdown of the international monetary system and the introduction of exchange and currency controls during the depression led other countries to abandon this policy of unlimited purchases; they now buy only such quantities as seem desirable in view of the combination of factors and problems with which they are confronted. The United States, on the other hand, has continued the policy of buying gold in any amounts offered whether by Americans or by foreigners. Not only is the American price for gold in effect the world price, but any newly mined gold not purchased by foreign countries is naturally sent to the United States. The foreigners who deposit this gold in banks or at the Treasury receive dollars, which they may either deposit in American banking institutions or use in purchasing commodities or securities.

We are not here concerned in appraising existing policies or in suggesting modifications. Our interest is merely in explaining the phenomenon of excess reserves.

Our silver purchase policy has also contributed to the increase of bank reserves. A series of acts designed to aid the silver industry were passed in 1934 and 1935. Under this legislation it became the policy of the United States to purchase all domestically produced silver and much foreign silver at artificially high prices for the ostensible purpose of placing our currency system upon a basis of one-quarter silver to three-quarters gold. Some of this metal has been added to the monetary stock by coining dollars or issuing silver certificates against the silver bullion. The silver money increased from $539,960,000 on June 30, 1930 to $1,778,000,000 on June 30, 1939.[3]

Certain developments have tended toward a reduction of bank reserves. The most important of these has been an increase in the volume of "money in circulation" and in "Treasury balances." The first of these terms relates to the volume of currency not held in banks or in the Treasury. It includes pocket and till money and also hoarded cash. Treasury balances mean idle cash in the Treasury and Treasury balances held at the Federal Reserve banks. The volume of money in circulation and in Treasury balances has shown a marked increase in recent years, thereby lessening the supply of money available for bank reserves.

Another factor tending to reduce bank reserves has been an increase of deposits in Federal Reserve banks by non-member institutions. These deposits were made to facilitate collections under the par collection system.

The combined effects of the factors in the reserve situation thus far discussed may be summarized as follows:[4]

Additions to reserves, 1933-38:		
Due to devaluation, gold production, and gold imports	7,422 millions	
Issue of silver certificates	1,221 millions	
Total additions		8,643 millions
Deductions from reserves:		
Due to increase in money in circulation and growth in Treasury and non-member bank deposits at Federal Reserve banks, etc.	2,648 millions	
Due to additional reserves required by increased deposits of member banks	1,307 millions	
Total deductions		3,955 millions
Net increase in reserves		4,688 millions

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[3] *Statistical Abstract of the United States, 1938*, p. 231; *Annual Report of the Secretary of the Treasury, 1939*, p. 507.

[4] Data from *Annual Report of the Board of Governors of the Federal Reserve System, 1938*, p. 20.

In 1936-37 the excess reserves were reduced by government action. The increasing volume of reserves and attendant fears of inflation led in due course to the passage of legislation which enabled the Reserve and Treasury officials to reduce the excess, by increasing reserve requirements. The first step was taken by the Reserve Board in August 1936 in the form of an increase in the legal reserve requirements. By stages, culminating in May 1937, the reserve requirements were actually doubled. After the beginning of the 1937 depression, however, they were reduced about 12 per cent.

The second step in the process, taken by the Treasury in December 1936, consisted of "sterilizing" gold imports. This meant that such gold was henceforth held by the government and not allowed to become part of the monetary stock. After sterilizing over 1.3 billions, the policy was given up in April 1938. Accordingly, it has no effect on the totals for the period 1933 to the end of 1938.

In summary, the efforts to decrease excess reserves resulted, in the years in question, in eliminating 2,342 millions. Subtracting this figure from the increase in reserves shown above, namely, 4,688 millions, gives a net increase in excess reserves over the period as a whole of 2,346 millions. This figure has been materially increased since 1938.

The excess bank reserves are of great potential significance from the standpoint of the capital market. They are responsible, along with the lack of current demand, for the extremely low short-term interest rates now prevailing. Moreover, their effect is not confined to short-term money rates. By virtue of the fact that the commercial banks are large purchasers of private mortgages and bonds and of government securities, both direct and guaranteed, the existence of excess reserves exerts a powerful pressure upon long-time interest rates. Interest rate trends are discussed in the ensuing chapter.

Fears have often been expressed that the existence of these huge reserves may lead to dangerous inflation. It will be recalled that this was the primary reason for the government's policy of sterilizing gold and of reducing the amount of the excess reserves by increasing the reserve requirements. The fear of commercial inflation is based upon the assumption that very low interest rates inevitably induce business men to expand their loans. The history of the last decade, however, suggests that other factors are more important in determining the extent to which business men will borrow funds.

It is evident in any case that in the existing reserve situation we have the financial basis for a great expansion of business at very moderate rates of interest. That is to say, assuming other factors become sufficiently favorable to induce a period of great business expansion, we should find no impediments in the form of a dearth of short-term credit or restrictive rates of interest. The danger would rather be that, once boom conditions had developed, the abundance of loanable funds at moderate rates might lead to speculative excesses.

Another point of view with respect to idle bank funds is that they should be forced into the channels of circulation by artificial devices such as negative rates of interest and the taxation of deposits, thereby restoring purchasing power and prosperity. Even if such mechanistic schemes are sound and practicable, it is evident that they would not directly increase the volume of new securities offered in the long-term investment market—which is the primary requirement for economic reconstruction and expansion.

CHAPTER IV

CAPITAL MARKETS AND INTEREST RATES

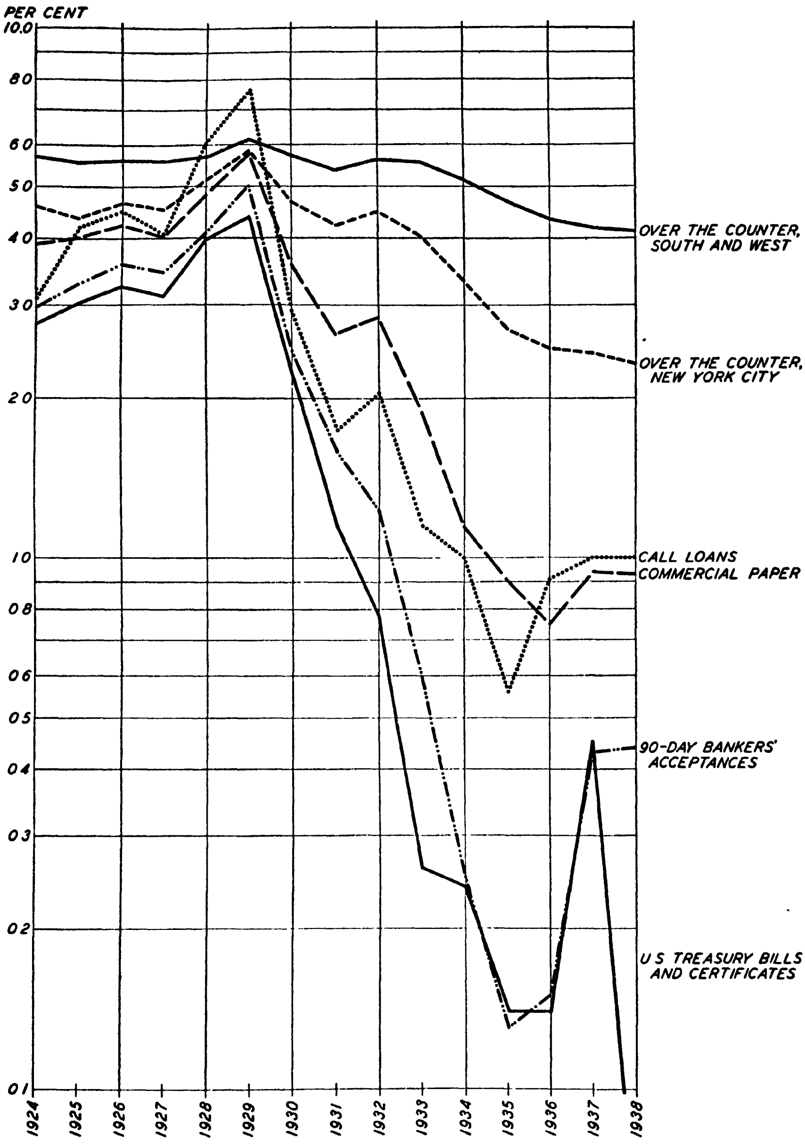
As earlier chapters have shown, the decade since 1929 has been characterized in the United States by stagnation in the principal outlets for investment funds. Commercial and industrial concerns have curtailed their demands for the accumulating savings of investors and for extensions of credit from the banks. Meantime, a growing volume of funds has sought employment in the capital markets of the country. The present chapter is concerned with the accompanying changes that took place in the "price of money." This includes consideration of short-term money rates, yields on *existing* long-term bonds at current market prices, effective rates on *new* long-term issues, and yields on preferred and common stock at current market prices. Omissions of many other important classes of rates—for example, rates on real estate loans, on installment sales, and on small loans for consumption purposes—are explained by the absence of satisfactory and continuous data series.

I. SHORT-TERM RATES

A shrinkage in the demand for short-term money began shortly after the stock market collapse of October 1929. Outstanding brokers' loans and other collateral loans decreased in amount as the fall in stock prices forced the liquidation of margin accounts and sales by discouraged investors and speculators. The accompanying decline in business activity resulted in a gradual paring down in the amount of short-term borrowings by trade and industry. The decline in demand continued through 1935. As has been indicated in Chapter III, the recovery movement of 1936-37 was not accompanied by the usual expansion in the demand for short-term business accommodations. Meanwhile, particularly after 1934, the supply of funds seeking investment in the short-term money market expanded rapidly.

Short-term interest rates after 1929 began a decline that carried them from one new low to another. The year 1932 ran counter to this trend, for in that year hoarding and a flight of capital from the

SHORT-TERM MONEY RATES IN THE UNITED STATES, 1924-38[a]



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[a] For data, see App. B, p. 359.

The 90-day bankers' acceptance rates given here are identical with those shown for the United States on p. 61. The apparent discrepancy in the character of the two lines is explained by the difference in the scales used. The ratio scale used here gives a graphic measure of relative changes in a given rate from year to year; while the arithmetic scale, used in later charts throughout the chapter, shows changes measured in absolute terms.

United States raised the general level of money rates above that for the preceding year. In 1937 also, a reversal of trend was in evidence for some types of loans.

The chart on page 56 pictures the movement of several important series of rates. Two of the series show the rates at which the banks made loans to their customers. The rest are open-market rates—that is, rates ruling on loan transactions entirely impersonal in character, and in no way affected by customer relationships. All are carried back to 1924 so that comparisons may be made with a period more nearly normal than the decade since 1929. The figures are given in terms of annual averages. Monthly or weekly data would, of course, show the same trends but with wider fluctuations from trend. The curves are drawn to a ratio scale and therefore picture rate changes and differentials in relative terms rather than in absolute amounts.

It will be seen from the chart that the greatest relative decline was experienced by United States Treasury bills and bankers' acceptances. These two open-market rates ranged fairly close together in every year prior to 1938 and, as usual, were lower than any of the others included in the chart. In all but two years the loans paying highest rates were "over-the-counter" bank loans to customers in southern and western cities. The exceptions were 1928 and 1929 when—with sales and prices in the securities markets at record highs, and with loans on securities ineligible for discount at the Federal Reserve banks—rates on call loans rose considerably above the preferential rates charged on "eligible paper."

Rates on bankers' and Treasury bills were generally below ¼ of 1 per cent from the middle of 1934 through 1936. In fact, bankers' acceptances stood at ⅛ of 1 per cent during the greater part of this period. Compared with these lows, the averages for 1937 and 1938 showed considerable recovery, but they still amounted to less than ½ of 1 per cent. The lowest point reached by bankers' acceptances before 1930 had been 2 per cent (in 1924). The yield on short-term Treasury bills dropped to 1/20 of 1 per cent in July 1935, recovered in 1936 and 1937, and in 1938 again declined until in December it disappeared completely and the extraordinary phenomenon of a negative rate of interest made its appearance.[1]

The rate on call loans with stock exchange collateral—until recent years the most important of the open-market rates—declined to ¼ of 1 per cent in 1935, and since May 1936 has been arbitrarily held at 1 per cent. In the period from 1890 to 1930 there had been only six scattered years when this rate averaged below 2 per cent, and in only one month had it averaged less than 1 per cent.

Open-market commercial paper, which for more than half a century has been a popular medium for investment of short-term funds by country banks, paid only ¾ of 1 per cent from early in 1935 until early in 1937, and in the latter part of 1938 fell as low as ⅝ of 1 per cent. The lowest quoted commercial paper rate prior to 1930 was 3 per cent, in 1924.

Finally, the rediscount rate of 1 per cent put in effect by the Federal Reserve Bank of New York on August 27, 1937 established a new world-record low in central bank history.[2]

The explanation of low interest rates is to be found in a simultaneous contraction of demand and increase of supply. The contraction in the demand for loanable funds was in part a continuation of a tendency, already manifest in the twenties on the part of corporations, to finance themselves in the security markets rather than through bank loans. More largely, however, it is a reflection of the comparative stagnation of business, which affected both the short-term and the long-term capital market. As shown in Chapter III the increase in supply of loanable funds was attributable largely to the great increase in the quantity of gold resulting from the combined influence of increased production, dollar devaluation, and imports from abroad.

There is a widespread impression that the explanation of low money rates both in the short-term and the long-term market is to be found chiefly in the government's fiscal policy. The argument runs that when the government covers its deficits by borrowing from the banks, the banks create a new supply of funds which, when disbursed, are deposited in the banks, thereby *artificially* expanding the supply of loanable money.

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[1] Investors paid a premium for part of a December issue of bills (and bought others at par), principally to gain exemptions from state and local property taxes. This was the first case of a negative rate of interest on a new issue of Treasury securities. In recent years, however, market purchases of Treasury notes have frequently been made on a negative rate basis as the notes neared maturity. In such cases, aside from the question of tax exemptions, prices have been bid up by purchasers who hoped to get favorable exchange terms from the Treasury when the notes shortly matured.

[2] *Annual Report of the Board of Governors of the Federal Reserve System, 1935*, p. 29; *1936*, pp. 29-30; *1937*, p. 9.

It is true that this process of credit expansion affects the total volume of deposits, but there is nothing artificial or unique about it. The process is not essentially different from what is involved when bank loans are expanded to meet the needs of commercial borrowers. Such loans result in deposit accounts against which checks are drawn, which are in due course redeposited in one bank or another. Similarly, when a bank purchases government bonds or notes the Treasury draws checks against funds made available in the Federal Reserve banks for purposes of meeting its obligations. The individuals or corporations who receive these government checks normally deposit them in banks precisely as do those who receive checks resulting from an expansion of private business loans. The only difference in the two cases is that the expansion of loans for private business purposes is entirely voluntary, while the expansion of bank credit in the purchase of government issues is perhaps not altogether voluntary.

As already indicated, the real explanation of the low rates on short-term obligations is to be found in the supply of available funds as compared with the current demands therefor. The superabundant supply, as we have indicated, has resulted largely from the influences affecting the supply of gold.[3]

Short-term rates in important foreign money markets, since 1929, have shown downward trends interrupted at times by temporary factors. An initial effect of the depression was to lower rates everywhere, bringing 1930 averages considerably below those for 1929. With some exceptions, this downward trend continued until the low point of the depression was reached in 1932. Since then, manifest differences in the economic and political situations of various countries have resulted in considerable fluctuations and in wide differentials from one market to another.

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[3] See pp. 49-51.

The variations in rates that occurred from year to year and country to country are indicated by the chart on page 61. This shows the return on acceptances in New York for the years 1924-38 in comparison with five important European markets. The figures are in terms of annual averages and thus show broad changes in relationships while obscuring the violent short-term swings common to certain markets.

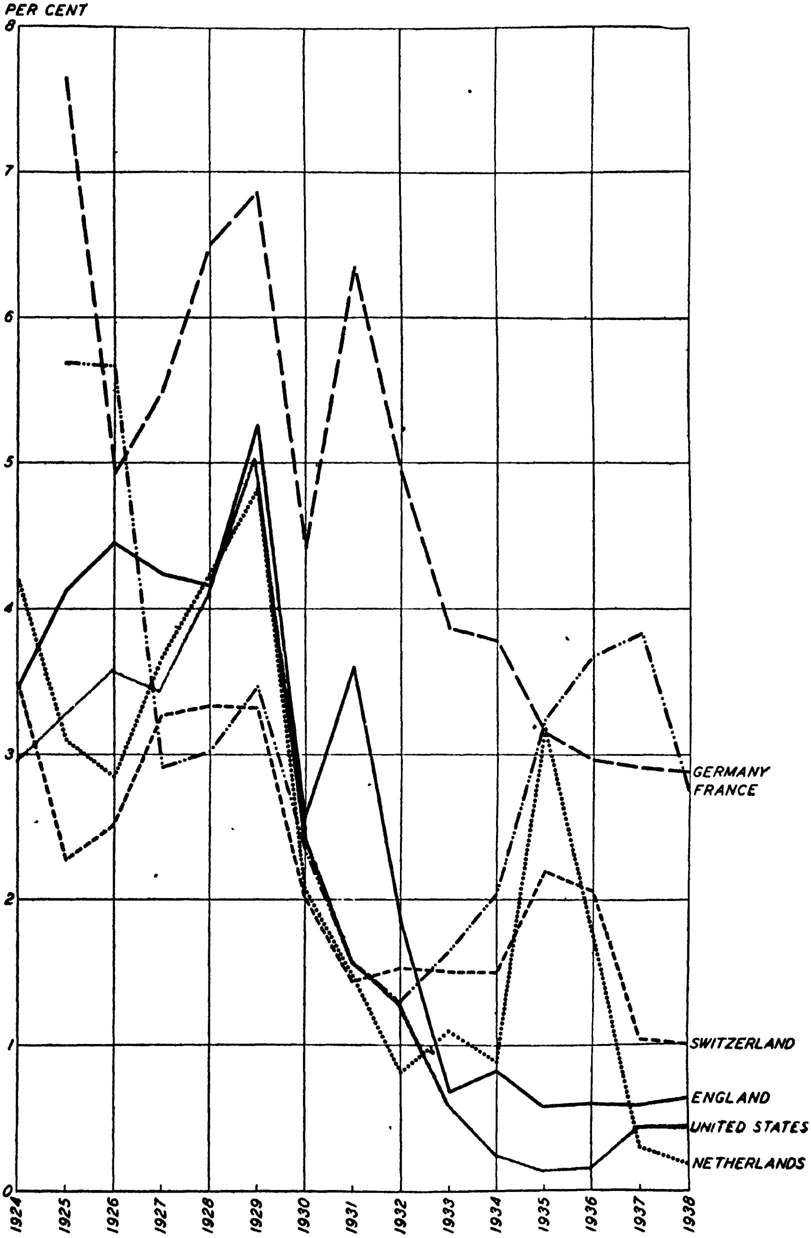
In reading the chart it should be recalled that the acceptance rate is one of the lowest of the open-market rates, and tends to stay reasonably close to short-term government paper. It should also be observed that neither these averages nor any other one series can furnish an adequate picture of the whole structure of rates in a given market. With these limitations given due weight, the chart provides a basis for rough comparisons of short-term rate fluctuations and trends at home and abroad.

The chart shows two striking interruptions in the general downward trend of acceptance rates abroad: in Germany and England in 1931; and in France, the Netherlands, and Switzerland, after 1932. In each case, an abrupt rise is shown that mirrors the response of the market concerned to important international events originating in other countries. The extent of the rise was, of course, also partially determined by political and economic conditions at home.

English and German short-term rates in 1931 moved contrary to the downward trend elsewhere in evidence, because these two countries were bearing the brunt of sudden and large repatriations of French and American funds. Suspension of gold payments by the Bank of England in September, and the inauguration of a managed currency in Germany in August, eased the strain on the money markets of these countries. A sharp decline in acceptance rates in both markets followed during 1932 and 1933, a movement that lost momentum in 1934, and tapered off in succeeding years.

As compared with New York, rates in Germany were high during the whole period covered by the chart, the spread widening to extraordinary proportions after 1930. Measured in points, the differential between New York and London was not great in any year except 1931, but in relative terms it was quite wide during the three years 1934-36. By 1938 this spread had narrowed considerably, the

AMERICAN AND FOREIGN ACCEPTANCE RATES, 1924-38[a]



[a] For data see App. B, p. 359.

year's average for London standing less than a quarter of a point above that for New York.

In the three "gold-bloc" countries, France, Switzerland, and the Netherlands, rates moved sharply upward after 1932. Uneasiness was developing over the political outlook in Europe, and also over growing budgetary deficits and government borrowing, particularly in France and Switzerland. Succeeding years, therefore, were marked by considerable withdrawals of foreign funds from these markets, where they previously had been attracted by the fact that the currencies of these countries remained on gold and were backed by large monetary reserves. Domestic hoarding and the export of capital by the people of the three countries took additional funds off the market. By 1935 the strain had grown extraordinarily heavy. Acceptance rates were at high levels, and early currency devaluation was generally predicted.

Finally in September 1936, the French devalued their franc, and immediately afterwards similar action was taken by the Swiss and Dutch. In Switzerland and the Netherlands, the flow of capital was almost immediately reversed, and short-term rates dropped sharply. In fact, by 1938 the rate on acceptances in Amsterdam was appreciably below that in New York. In France, however, the outflow of funds continued, and it was not until the establishment of a strong government and the adoption of constructive economic policies, coupled with effective appeals for sacrifices in the face of impending war, that there was a sufficient repatriation and dishoarding of funds to ease the short-term money market. In 1938 the acceptance rate in Paris was easier, but it remained considerably higher than in the United States or in other important European markets. In Zurich the 1938 average stood roughly ½ point higher than New York.

In general, then, short-term rates in the New York market after 1931 were lower than in the leading markets of Europe, with the occasional exception of Amsterdam. In spite of existing differentials, however, foreign funds in considerable volume migrated to the United States, for the advantages of higher yields abroad were offset by greater risks. The loan of these fugitive funds could be had for a song, if the employment offered were thoroughly safe, but they were not available for hazardous employment. In this they were like much of the free capital already in the country. Thus a superabundant volume of domestic and foreign funds was offered in the market in most years, but this did not set new industries in motion or speed up the tempo of the old. On the contrary, it merely served to bid down the rates paid on all types of safe loans until, as indicated above, some short-term bills were actually sold by the Treasury at a negative rate of interest in the latter part of 1938 and early 1939.

II. MARKET YIELDS ON BONDS

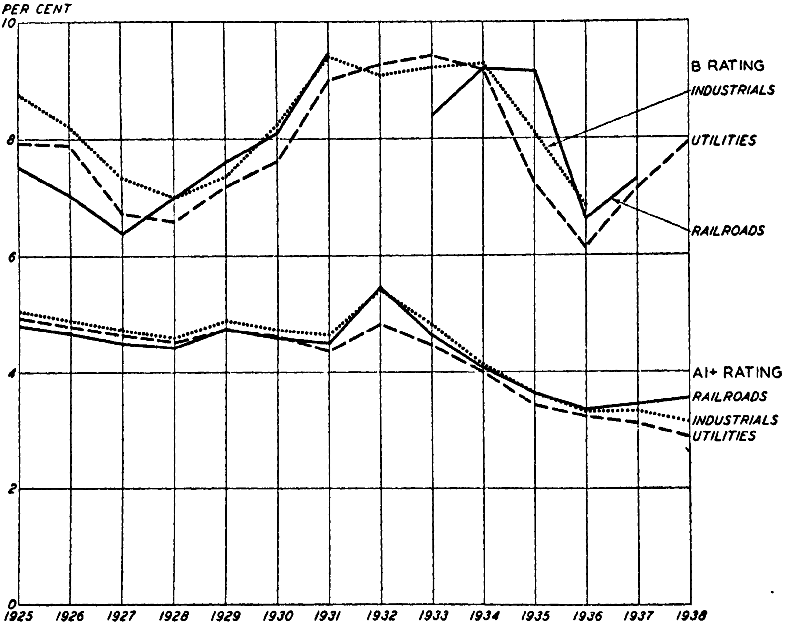
Long-term money rates, as measured by bond yields, did not show the immediate and drastic declines exhibited by short-term rates after 1929. In fact, in 1932—the turning point of the depression—yields on all classes of outstanding bonds were higher than when the depression began. This rise in yields (and decline in bond prices) came at a time when confidence was at so low an ebb that bonds were liquidated in great volume by frightened holders seeking safety for their funds in private hoards or by sending them abroad.

When the return flow of funds began in 1933, there was some rise in the prices of high-grade bonds, with a corresponding reduction in market yields. This movement gained headway from year to year as new savings were added to the volume of funds seeking investment outlets. Meantime the available supply of high-grade bonds was decreasing, for the maturing issues of some strong private corporations were being paid off as they fell due, while few new issues were currently offered. Taking advantage of this situation, and of the call provisions in their outstanding bonds, other borrowers paid off their old loans or refunded them with money borrowed at considerably lower rates.

Compared with the precipitate drop in short-term open-market rates after 1929, the decline in bond yields was of moderate proportions. By 1938, however, it amounted to a drop of some 25 to 40 per cent on high-grade issues.

Market yields on corporate bonds of unlike quality have shown extraordinary differences in level and trend. As analyzed by the leading rating agencies, the records of the security markets show the yield (to maturity or earliest call date) on existing securities at current market prices. Such averages are computed by broad industry groups and also by rating, or quality, classes of issues. Thus they show the rates earned on funds invested currently in the seasoned securities of various industry groups, with the bonds subgrouped according to their probable safety and the degree of risk affecting them.

MARKET YIELDS ON HIGH- AND LOW-GRADE BONDS, 1925-38[a]



[a] For data see App. B, p. 360.

The accompanying sketches the movement of market yields on long-term railway, public utility, and industrial bonds in two rating classes.[4] The "A1+" class includes bonds that the rating agency judges to be of maximum safety—the highest rating of all. The "B" class is made up of the so-called "business man's bonds" whose investment character is considered to be uncertain, and is the lowest of the six classes for which market-yield data are compiled. Below the corporate B bonds in quality and price are other bonds ranging from those in a "favorable speculative position" to those having very little, if anything, to recommend their purchase or retention. In the symbols used by Standard Statistics, this range is from C1+ to F. The return, if any, on these bonds is highly speculative in character—varying from occasional substantial rates on some of the C1 + bonds to zero in the case of practically all D, E, and F bonds.

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[4] As compiled by the Standard Statistics Corporation.

It will be seen that investors took different attitudes toward the two classes of bonds considered in this chart. The sharp decline in low-grade bond prices that was noticeable during 1929 gained momentum after the stock market crash, with no sustained price rise shown for this section of the bond market until 1935. So long as the price decline continued and interest payments were met (as they must be if a bond is to keep a B rating), these bonds yielded increasingly higher rates of return in terms of current prices. But against the high yields thus available, investors measured the losses in principal, as well as in income, that would be involved if interest payments were defaulted. And in making their selections, they attached more than ordinary importance to this factor of risk.

Prices and yields for high-grade bonds followed opposite trends from those for semi-speculative issues during the first two years of the depression. In the panic year 1932, however, even high-grade bonds were thrown on the market by frightened investors wanting gold for hoarding or export. In this one year, therefore, prices of A1+ bonds were pared down, and yields increased. In other years, the effects of a diminishing supply of high-grade bonds and an increasing supply of investment funds are reflected in higher prices and lower yields for such bonds.

The net result of divergences in the trends followed by high- and low-grade bonds was to widen the very considerable yield differentials normally existing between them. In 1928, for example, when the general business outlook appeared to be promising, prices of B bonds were at levels where they yielded a return roughly 1½ times that on bonds in the highest rating group. By 1932, when panic conditions and a general low level of bond prices prevailed, the yield on these low-grade issues was from 1⅔ to almost 2 times the return on A1+ bonds. In 1936, when all bond prices were rising, the yield on B bonds was still roughly 2 times that on bonds of the highest quality. And in 1938, as shown by the utility indexes, B bonds were yielding 2¾ times the return on A1+ bonds.

These differentials in market yields were common to all three industry groups shown by the chart. Thus bonds offering about the same degree of safety to the investor were sold on roughly equivalent terms, whether the debtor corporation was a railway, a public utility, or an industrial concern. Conversely, the market yields ruling for a given industry ranged from very low and safe to exorbitantly high and speculative.

Federal government bonds showed a considerable decline in yield after 1932, and municipals after 1933. In normal times the obligations of governmental bodies are in a preferred class as compared with the securities of private corporations. The taxing power of the issuer makes for safety, while the tax-exempt status enjoyed by government bonds makes them a desirable form of holding for investors in the higher income groups. In general, therefore, they sell on a comparatively low-yield basis.

The chart given below shows market yields on the bonds of (1) the United States government, (2) 11 cities rated "first-class" risks, and (3) a group of cities rated "poor" risks. For comparison, the yield on A1 + public utilities is also given.[5] In general the three indexes for high-grade issues follow similar patterns. All three rise sharply in 1932, and all three are considerably lower in 1938 than in 1929—though for United States Treasury bonds, the price-rise and yield-decline were less abrupt than for the other two series. For low-grade municipals, average yields fluctuated much more widely, standing in 1933 more than 40 per cent above the 1929 level, and in 1936 about 32 per cent below.

The course of the index for low-grade municipals is explained largely by the same factors that brought about the concurrent rise in market yields on low-grade corporate issues. It also reflects the market's response to a storm of municipal defaults that began late in 1932 and reached a climax three years later. The number of defaulting American municipalities rose from 752 at the end of April 1933 to 1,620 on March 1, 1934, and to 2,334 on November 1, 1935, after which it began to diminish.[6] Even the issues of cities rated first-class credit risks were affected by these defaults, the yield for this group in 1933 being almost as high as in the panic year 1932, and the decline from 1932 to 1934 being less abrupt than for federal government and utility bonds.

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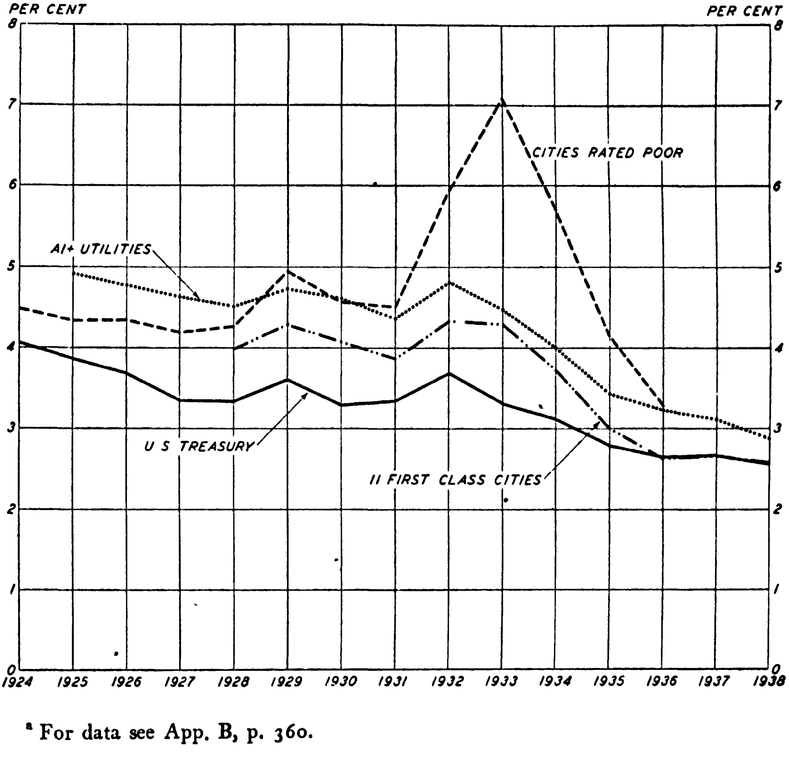
[5] No great importance should be attached to single-year comparisons of the four indexes, since the differentials shown by the chart for any given year undoubtedly reflect differences in methodology as well as in actual yields on the several classes of bonds considered. For a tabular presentation of the data see p. 360.

As pointed out above, the differential between federal government bonds and other high-grade securities became narrower as the

YIELDS ON MUNICIPAL AND FEDERAL GOVERNMENT BONDS, 1924-38[a]



[a] For data see App. B, p. 360.

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[6] A. M. Hillhouse, *Municipal Bonds* (1936), p. 19.

general decline in market yields progressed. In fact, as shown by the chart, the average yield on high-grade municipals in 1936 and 1937 was slightly lower than on federal government bonds. As shown by the chart, the average yield on federal government bonds was consistently lower than on high-grade corporates, no allowance being made for tax exemptions. However, comparisons based on issues having the same coupon rate and same maturity show that from the middle of 1934 forward, yields on federal government bonds have frequently been above those on similar corporate issues —again with no allowance made for tax exemptions.[7] This probably is attributable in the main to the large supply of government issues placed on the market as compared with the very limited number of new high-grade corporate issues. In general, however, all classes of gilt-edged securities were approaching a common yield basis—reflecting the efforts investors were making to maintain the quality of their holdings while at the same time avoiding further reduction in their income.

The price paid for long-term money has varied considerably from country to country during the past decade. The chart below presents international comparisons of long-term money rates as shown by market yields on government obligations. Here only three markets are considered: the British, as represented by 2½ per cent consols; the French, by 3 per cent perpetual rentes; and the American, by the average for all outstanding Treasury bonds having a term of 12 years or more to maturity. In reading the chart it should be noted that the yield on consols is subject to heavy taxation, while the French rente and United States government bonds enjoy important tax exemptions.[8] Strict comparability is lacking for the additional reason that the American rate given is an average for bonds having a maturity of 12 years or more, while the consol and perpetual rente are securities having no maturity or repayment date.

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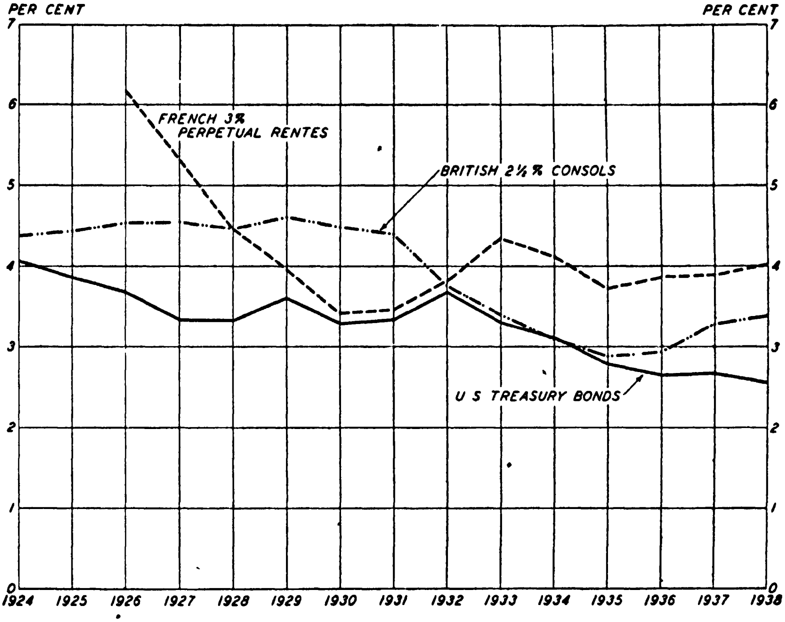
[7] For example, see Homer & Co., Inc., *Quarterly Review*, April 1936, pp. 8-9, April 1937, p. 20, for a comparison of U. S. Treasury 4's of 1944-54 with an average for Philadelphia, Baltimore, and Washington 4's of 1943 and United N. J. Railroad and Canal 4's of 1944. See also the same, January 1939, p. 8, for a comparison of U. S. Treasury 3⅛'s of 1949-52 with New York Gas, Electric Light, Heat and Power 4's of 1949.

[8] The 3 per cent perpetual rente is exempt from the normal (*cédulaire*) income tax, but not from the income surtax (*l'impôt général*). Robert Murray Haig, *Public Finances of Post-War France*, p. 198.

Until Britain went off gold in 1931, there was a considerable spread between the British and American rates as given in the chart. In 1932, re-established confidence in Great Britain coincided with panic conditions in the United States. These opposite trends brought the two series very close together, and with the American banking situation righted, both of them moved lower during the next three years. When the Germans went into the Rhineland in March 1936, however, the price of consols declined and their yield increased. Early in 1937 a British program of borrowing for rearmament was announced, followed by a further increase in the market yield for consols, and a widening of the yield differential between British and American government loans.

Yields on American and Foreign Government Bonds, 1924-38[a]



[a] For data see App. B, p. 360.

It should be noted that the comparisons shown by the chart, and considered here, are in terms of the gross yield on consols. If the chart showed net yield on consols—that is, if allowance were made for the British income tax at the standard rate—the corrected curve would be about ¾ of 1 per cent below the one given. On a net basis, therefore, the yield on consols was not much higher than on United States government bonds in most of the years represented, and from 1932 through 1936 it was less.

On the 3 per cent perpetual rente, market yields were high in both absolute and relative terms during most of the years covered by the chart. This favored security of the small French investor consistently was sold on a higher yield basis than United States government bonds, the differential being of considerable proportions in all but three years. The exceptions were 1930 and 1931 when the French repatriated a large volume of the short-term money they had placed abroad, and 1932 when the United States was experiencing a temporary flight from the dollar. In most of the years charted, the rente also sold to yield considerably more than the consol. Allowance being made for the tax burden on the latter, only two years—1930 and 1931—show a reversal of this relationship.

Available data indicate that the differentials between corporate issues in the three markets considered were roughly comparable with those for government securities. In all three, of course, yields on high-grade corporate bonds tended to follow patterns similar to those for government issues, but usually at higher levels. Light on this point is furnished by the comparisons given for the American market on page 67 above.[9]

In general, then, high bond yields were the rule in France, reflecting the strain on the market of continuous borrowing by the government and recurring exports of frightened capital. At the same time yields were low in England and the United States. In spite of existing yield differentials, however, large amounts of foreign funds were moving to England and the United States, rather than to France, the purpose of the migration being safety rather than gain.

III. EFFECTIVE RATES ON NEW LONG-TERM ISSUES

The short-term money rates discussed in the first section of this chapter show effective rates on *new* loans, while the long-term rates presented in the second section show market yields on *existing* loans. This difference in the indexes, as they are ordinarily compiled, follows from differences in the duration of the two types of contracts. Since short-term rates typically refer to contracts maturing in six months or less, new contracts bulk large in the total of such loans in existence at any given time. Long-term loan contracts, on the other hand, always extend for several years—some of them running 100 or even 500 years—so that the aggregation of existing loans brought over from an earlier period far outweighs the volume of new issues offered in any given month or year. However, from the point of view of prospective borrowers in the long-term market, primary importance attaches to current rates on new issues—the subject to be discussed in the present section of the chapter.

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[9] The movement of bond prices in the three markets is currently summarized in the *Federal Reserve Bulletin*.

In general, effective rates on new issues closely approximate market yields on outstanding bonds of similar quality. This was shown by a recent study of the public utility bonds issued during the years 1919-33.[10] These findings suggest that the average yields given on page 64 above for bonds in different rating groups furnished a measure of the widely disparate terms on which new loans have been available to various groups of potential borrowers during the decade since 1929.[11] From those averages we may conclude that many "would-be" borrowers found the new-issues market practically closed to them. For example, from 1931 through 1935, a proposed new corporate issue of about B rating quality would probably have had to offer a yield of roughly 9 per cent in order to find purchasers; and its cost to the borrower would have been well above 9 per cent. For more necessitous borrowers, funds probably would not have been forthcoming even at this level. The averages also indicate that well-entrenched and thoroughly solvent corporations, say with a credit rating of A1+, might have borrowed at from 3½ to 5 per cent during these years. Finding few opportunities for employing additional funds at a profit, however, these concerns seldom came into the market for funds.

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[10] Roy Lester Reierson, "Measurement of the Price of Public Utility Capital, 1919-33" (unpublished dissertation on file in Northwestern University library), particularly p. 251.

[11] Reierson's study indicates that in periods of uncertainty divergences may appear between rates on new issues and on outstanding bonds. This probably is to be explained by the thinness of the market and the small number of new offerings.

In the case of new railroad issues, every effort is made to fix prices and yields at prevailing market levels. All new loans offered to the public by this industry are under the control of the Interstate Commerce Commission, and are scrutinized to ascertain whether prospective earnings are sufficent for meeting payments on proposed new borrowings.[12] That is to say, no issues are authorized unless they are judged to be reasonably safe, and therefore better than existing bonds in the "B rating" group. The proposed terms on which new issues are to be floated are also carefully weighed—and frequently are revised by the Commission, in the light of prevailing market prices and yields.[13]

For the railways, very complete information is available concerning new issue costs as well as yields. This makes possible a comparison of the terms on which different borrowers have obtained funds in the new-issue market in recent years.[14] In interpreting the data, however, it is necessary to remember that the railways undoubtedly show much greater uniformity in the quality of new issues than any other large section of industry.

The chart on pages 74-75 shows costs to the railways and yields to the public for new railroad issues during the years 1925-38. As a background for the comparisons presented, market yields are given for three rating classes of existing railway bonds. Sections I-III deal with bonds alone, excluding equipment trust certificates. The first section presents annual average costs and yields for all new railway bonds publicly offered. The second shows the highest rate of return offered to the public each year on any new bond issue, and the cost per cent to the borrowing carrier of the same issue. Similar data are also given for issues offering lowest yields to the public. The third section covers all new bonds authorized by the Commission, whether publicly offered, privately sold, or exchanged for matured or defaulted bonds, or for the issues of other companies. Here the issue with the highest cost to the borrowing carrier is compared each year with the lowest-cost issue. The last section deals with new equipment trust certificates, showing the highest and lowest yield to the public on individual new issues each year, and the corresponding costs to borrower for the same issues.[15]

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[12] Only short-term notes maturing within not more than two years and amounting in the aggregate to not more than 5 per cent of the carrier's outstanding securities may be issued without approval of the Commission. I. L. Sharfman, *The Interstate Commerce Commission*, Vol. III-A (1935), p. 503, note 357.

[13] The same, pp. 563-67, 572, and note 495 on p. 569.

[14] Data presented in this section have been compiled from the dockets for individual issues in the Interstate Commerce Commission Finance Reports.

According to the first section of the chart, fluctuations in the new-issues market have closely paralleled those for high-grade seasoned bonds. Average yields, and also average costs, for new issues during the period covered have consistently been somewhat higher than market yields for A1+ bonds, but below the A rating group.[16] Other sections of the chart show that even for the railways, wide differentials exist in the terms on which new individual issues are placed on the market.

According to section II, the new public issue with the lowest yield offered a rate of return somewhat below the average for the A1+ group of seasoned securities in every year except 1929 and 1935; while the highest-yield issue offered a return somewhat above the A rating average in every year except 1928 and 1931.[17] Even wider differentials are shown between the percentage costs to carriers for these same issues.

In section III, these cost differentials are considerably increased if all bond issues are included in the comparison—privately sold and exchanged bonds, as well as publicly issued. In fact, in some years cost differentials on all new bonds exceeded the differentials between average yields on A1 and B grade seasoned bonds.

Equipment trust certificates, considered in section IV, constitute a special class of railroad obligations. These certificates as a rule have a life of not more than 15 years, during which they are paid off serially. Installment payments on principal thus provided for in the loan contracts are commonly treated as an expense by the carriers, and charged against depreciation reserves. In practice, therefore, the certificates are given priority over general fixed charges that are met from income after the payment of operating expenses.

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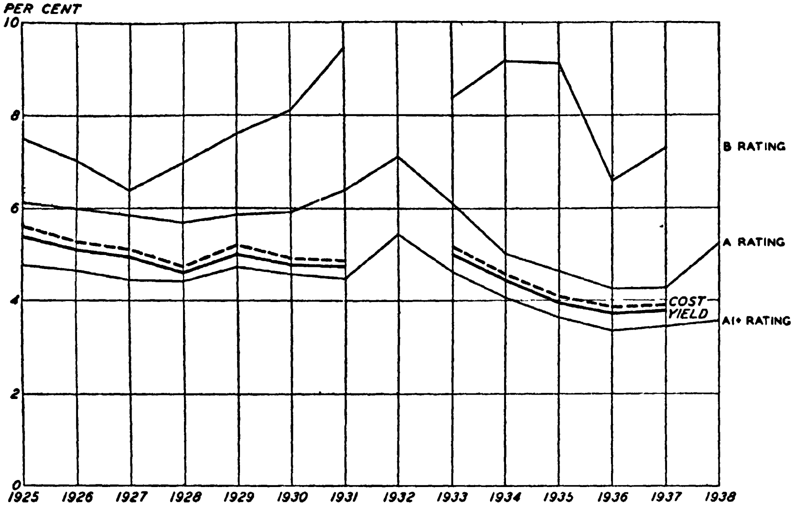
[15] For 1935 and 1937, issues of equipment trust certificates were priced according to their maturities, so that an average yield for these years has not been calculated.

[16] The rating classes, in order, from the highest to the lowest for which Standard Statistics compiles market yields are as follows: A1+, A1, A, B1+, B1, B.

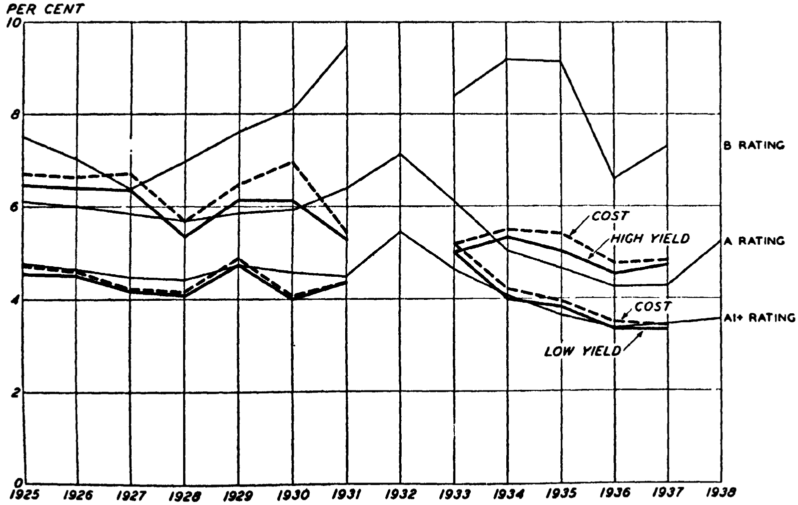
[17] Since there was only one issue in 1933, it is barred from these comparisons.

NEW-ISSUE YIELDS TO PUBLIC AND
Compared with Market Yields on Seasoned

I. AVERAGE YIELD AND COST ON ALL NEW BONDS PUBLICLY OFFERED



II. HIGHEST AND LOWEST YIELDS ON NEW BONDS PUBLICLY OFFERED[b]
With Cost to Railroads of Respective Issues



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[a] For data, see App. B, pp. 355-58.

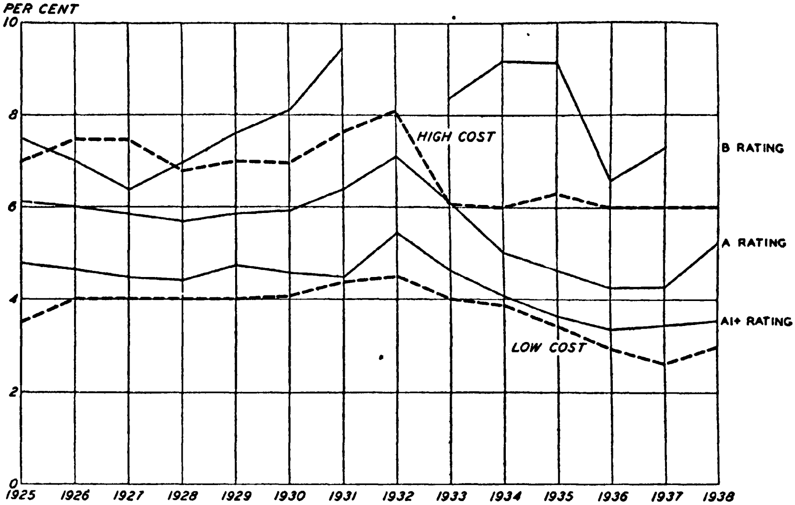
[b] In 1933 only one new issue was offered to the public.

Costs to Railroads, 1925-38[a]

Railway Bonds, by Rating Groups

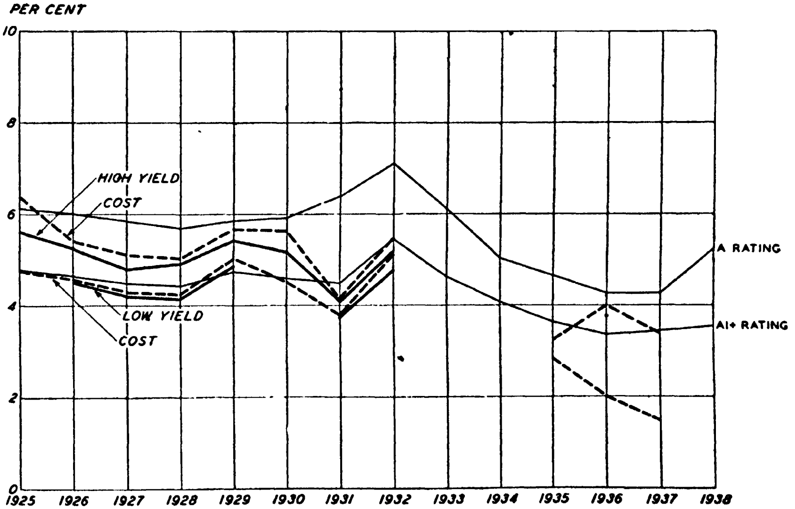
III. HIGHEST AND LOWEST COSTS ON ALL NEW BONDS

Whether Sold Publicly, or Privately, or Exchanged[c]



IV. HIGHEST AND LOWEST YIELDS ON NEW EQUIPMENT TRUST CERTIFICATES PUBLICLY OFFERED

With Cost to Railroads of Respective Issues



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[c] Including new bonds given for matured or defaulted bonds, or for bonds of other companies.

Moreover, they represent a direct lien on rolling stock, a type of equipment easily attached and resold in the rare case of default by the original purchaser.

In view of the very small degree of risk attaching to equipment trusts, it is not surprising to find that new issues of such certificates have been taken by the public on terms very favorable to the borrowing roads. Even in the panic year 1932, the highest percentage cost involved for any new public issue was only slightly above the average market yield on A1+ bonds.[18]

Study of the individual issues covered by the foregoing comparisons indicates that differentials in yields and costs are explained partly by the size, partly by the quality of the issues concerned.[19] In addition, of course, rates are affected by differences in maturity dates and in the special provisions and terms affecting different issues. Analysis of the 11 new bond offerings with highest yields to the public in their respective issue years—from 1925 through 1938[20]—shows that 4 were for amounts of less than 1 million dollars. For the other 7, the record to the latter part of 1939 shows that 3 were selling above \$90, and 4 were in default, with their 1939 prices ranging from a \$2⅛ low in the case of one issue to a

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[18] In every year charted, the issue offering the highest yield to the public was also the one involving the highest cost to the borrower. The one issue of equipment trust certificates sold during 1933 and all the 22 issues of 1934 were privately taken. In 1934 and 1935 the principal purchaser was the Federal Emergency Administration of Public Works, although some were privately taken by an insurance company. In 1936-38 a considerable number of these issues were privately purchased by insurance companies and other "trustee investors," and only a very few by government lending agencies.

[19] In general, the control exercised by the Interstate Commerce Commission prevents the issuance of new low-grade railroad bonds. However, it appears that the Commission sometimes gives prospective borrowers the benefit of the doubt, granting them permission to issue bonds that soon prove to be of uncertain quality. For example, in 1925 and 1926 the new issues giving the highest yields to the public were two offerings (18 million dollars) of Seaboard Airline 6 per cent bonds issued at \$94¾ and \$95½, which sold in 1928 as low as \$72¾. The high-yield issue for 1927 was a Seaboard-All Florida 6 per cent bond whose issue price was \$97¾, and whose low the following year was \$64. All of these bonds have been in default since the spring of 1931. For 1931 the high-yield issue was a Missouri Pacific 5 per cent bond issued at \$95, which sold as low as \$64 the following year, and defaulted in 1933.

[20] There were no public issues authorized by the Commission in 1932 and 1938, and only one in 1933.

$21¾ high for another. Of the 11 lowest-yield issues, on the other hand, none was for an amount as small as 1 million dollars. Only one was in default by the latter part of 1939; 3 had been paid off or refunded; while the other 7 had market ratings ranging from B to A1, and a 1939 price range of $54 to $106½. Under the test of time, the new issues considered above have shown quality differentials much greater than those indicated by their issue terms.[21]

This sketchy review of railroad bonds throws light on the borrowing positions of some roads at the present time. Some companies have maintained their credit at a high level, and these could now borrow on much easier terms than were available in the twenties. This is indicated by the second section of the chart, page 74. On the other hand, some companies that were floating loans in the twenties would now be refused permission to negotiate any new public issues. This is evidenced by the fact that many loans offered in the twenties are now in default. Other companies—although they have met all payments on their bonds—have experienced a considerable deterioration in the "quality" of their outstanding issues. This would be translated into higher costs if the companies were able and willing to go into the market for new funds. For example, on a new railway issue with a rating as low as B, if such an issue were authorized, the annual cost would probably be above 8 per cent, or considerably higher than the percentage cost of any new issue authorized during the period covered by the chart on page 75. And reference to the records shows that many issues formerly rated A or better have moved down to the B group, or lower.

It can be seen that for many roads the prevailing low level of money rates is a myth that cannot be translated into reality under present conditions. For many companies the annual carrying charges for new bonds would be very much greater today than in the twenties, in spite of the decline in rates on high-grade issues. Whatever the capital needs of the concerns in this group may be, an improvement in their financial position is a prerequisite to new borrowing through ordinary investment channels.

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[21] On the average, however, the performance of bonds with lowest initial yields has been better than for the highest-yield issues.

IV. MARKET YIELDS ON STOCKS

For many investors, stocks and bonds represent alternative investment opportunities. In view of this fact, the survey of money rates presented in preceding pages would be incomplete without mention of the movement of dividends during recent years. While interest takes priority over dividends, experience shows that this does not always constitute a guaranty against default. And while the annual amount to be paid on a bond is "fixed" by the loan contract, it is subject to reduction in most cases through the call and refunding of the loan.[22] These considerations have induced many conservative investors to diversify their portfolios by the purchase of stocks, both preferred and common. Preferred stocks, which are like bonds in many ways, usually offer higher yields than bonds of similar quality. Common stocks, on the other band, provide a hedge against the "fixed" rates promised by bonds, for dividends may be expected to swing up in good years or in periods of inflation, as well as down in off years.

The decline in market yields on high-grade preferred stock has not been as great as on bonds during the past decade. This is shown by the comparison below for high-grade industrials. At the low prices of 1932, high-grade preferred stocks were yielding much higher returns than in preceding years, and also much higher than in any subsequent year covered by the chart. The same statement also applies to A1+ bonds. However, the yield differential shown for preferred stocks, as compared with bonds, increased considerably in 1932. During the following five years, this differential narrowed slightly, but in 1938 it was even greater than in 1932.

Comparisons between yields on common stock and on other types of securities are vitiated by differences in methodology in available indexes. The only yield indexes published for common stocks are compiled for unchanging lists of stocks, whether the companies concerned continue to pay dividends at the old rate, increase or decrease the rate, or omit payment altogether. This undoubtedly goes far toward explaining the very erratic character of these indexes. On the other hand, the indexes for corporate bond yields, and also for

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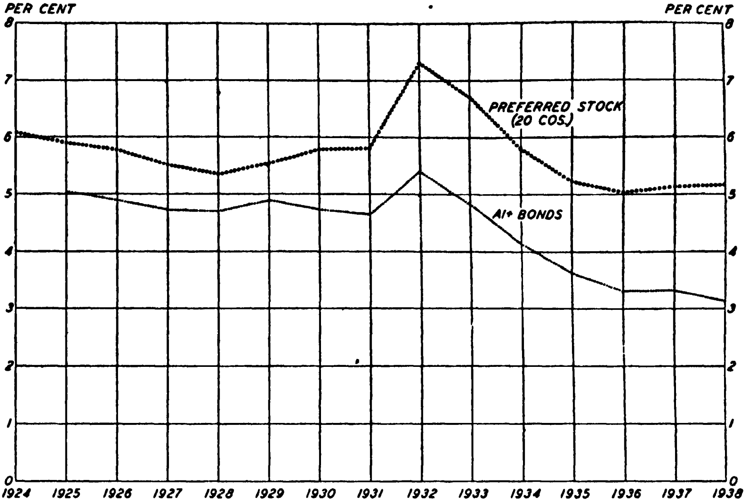
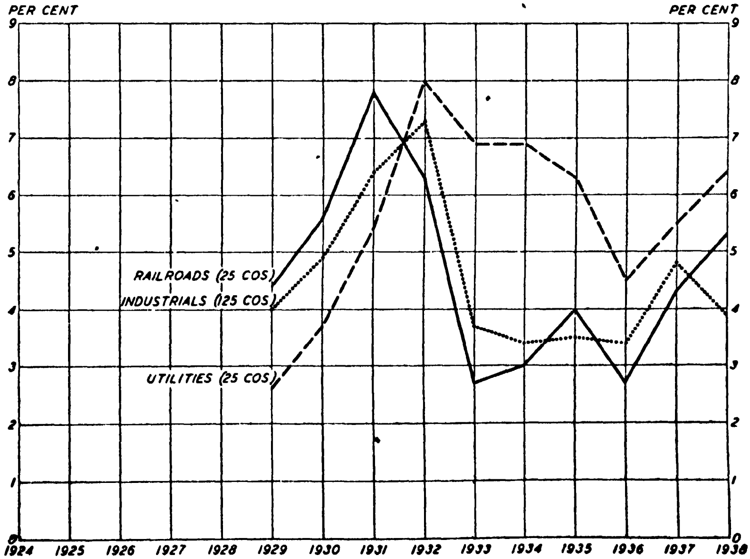
[22] The borrower may also exercise the call privilege, of course, when interest rates are rising, the purpose then being to forestall refunding at even higher rates on a loan nearing maturity.

Market Yields of Stocks[a]

I. HIGH-GRADE PREFERRED STOCK v. AI+ BONDS
(Industrial corporations only)



II. COMMON STOCK OF 175 IDENTICAL CORPORATIONS



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[a] For data, see App. B, p. 360.

preferred stocks, are all compiled for securities in given quality classes. Any indication of a weakening in the financial position of one of the bonds included, say, in the A1+ quality index, automatically results in the elimination of that bond from the list and, if possible, the substitution of another with an unclouded future. In this way some sharp peaks and hollows in the bond yield indexes undoubtedly are ironed out.

In the chart above, average market yields on common stock during the decade 1929-38 are given for 175 identical corporations in three industry groups. These indexes show aggregate common dividends paid, expressed as a percentage of the aggregate market valuation of all outstanding common shares, for this unchanging group of corporations (with the calculations based on end-of-month prices). Thus they show the yield available each year from the purchase of this group of common stocks at average market prices for the year.

It will be seen that the high and low levels shown by the chart result from various combinations of high or low dividend payments and stock prices. For example, the high yields shown for 1931 and 1932 have different explanations. In 1931 dividends held up well while stock prices declined, and in 1932 the very considerable decline in dividend payments was not as great as the decline in stock prices.

Market yields on rails and industrials were low in 1933, dividend payments reaching bottom at a time when stock prices were beginning to recover from their 1932 low. The rise shown for rails in 1935 and the drop for all three indexes in 1936 are deceptive—for in 1935 rail dividends continued at a low level, but prices showed a marked decline, while in 1936 a very real increase in dividend payments coincided with a sharp rise in stock prices. Both prices and dividends rose in 1937 and fell in 1938, their relative change being reflected in average market yields for those years.

Public utility companies in general have maintained good dividend records. Fear of government competition with this industry, however, has helped drive stock prices down, so that market yields on these stocks have averaged well above 5 per cent in every year but one since 1930.

Averages for the whole 10-year period 1929-38 furnish a rough indication of the returns available from investments in stocks as compared with several types of high-grade bonds—allowance being made for the changing character of the lists of securities underlying the indexes for A1+ bonds and preferred stocks. A comparison of yields in 1937 and 1938 with these averages for the past decade also throws light on the more recent performance of stocks.

These data, like the charts given earlier in the chapter, bear witness to the downward trend of rates still in evidence for most classes of high-grade bonds. They also show the increasing differential between preferred stocks and bonds already pointed out by the chart on page 79. Read in conjunction with the lower section of the chart on page 79, they show that after wide fluctuations, market yields on common stocks in 1937 and 1938 were near the 10-year average. The fact that these yields fluctuate around a fairly satisfactory average, as compared with the persistent downward trend of bonds, accounts for the inclusion of some common stocks in the portfolios of conservative investors at the present time.

COMPARISON OF MARKET YIELDS ON STOCKS AND BONDS[a]

Index	10-Year Average (1929–38)	1937	1938	*1938 as Percentage of 10-Year Average*
Common stock (175 identical cos.).......	4.67	4.83	4.46	*96*
High-grade industrial preferred (20 cos.)..	5.76	5.14	5.17	*90*
A1+ bonds...........................	4.12	3.30	3.19	*77*
High-grade municipals (11 first-grade cities)	3.55	2.67	2.58	*73*
United States Treasury bonds..........	3.10	2.68	2.56	*83*

[a] Annual data are given in App. B, p. 360.

RECAPITULATION

The foregoing pages show that the difficult decade since 1929 has been characterized by a general downward trend in the "price of money," and by extraordinarily wide divergences in the rates on different classes of loans. Stripped of details, the movements of different classes of money rates may be summarized briefly as follows:

Short-term rates. All classes of short-term rates have shown very extensive and more or less continuous declines.

The greatest declines are found in the classes of highly liquid, impersonal, open-market loans, which include Treasury bills, bank acceptances, commercial paper, and call loans. Present rates in these credit categories appear negligible as compared with the rates prevailing in the twenties.

Loans to bank customers show much smaller declines, the extent of the reduction varying directly with the importance of the financial center. In New York City the reduction in this rate has amounted to 55 per cent, when measured from the more normal year 1928; in other northern and eastern cities, 37 per cent; and in southern and western cities, 26 per cent.

In important foreign markets, rates on bankers' acceptances have been influenced by temporary migrations of capital as well as by the curtailment of demand for short-term funds. By 1938, however, rates in all of the markets considered were below the level of the twenties, and considerably lower than in 1929.

Long-term rates. After holding at or near pre-depression levels until 1932, the yield on high-grade bonds turned downward, and thereafter has steadily declined.

Investors have bid up the price and "bid down" the yields on all kinds of high-grade corporate bonds. At the same time lower prices and higher yields have obtained for low-grade bonds.

Rates on long-term issues of the United States Treasury have fallen less markedly than on high-grade corporate bonds, so that yield differentials between government and private loans in 1938 were considerably narrower than in the twenties.

Effective rates on new bond issues tend to approximate market yields on outstanding issues of the same general character.

Yields on stocks. Market yields on high-grade preferred and common stocks have not shown as great reductions as rates on bonds or on short-term loans.

Dividends on common stocks averaged a higher percentage of current market prices in 1938 than in 1929. Moreover, market yields in 1938 were almost equal to the average for the ten years 1929-38.

By 1938, the yield on preferred stock, as shown by the index for industrials, was not far below the 1929 level. As compared with high-grade bonds, yields on preferred stocks have held up extraordinarily well, and the differential between these two classes of securities has steadily widened since 1929.

No consideration has been given here to the effects of falling money rates on the holders of securities. The plight of investors whose income is derived principally from interest and dividends is the subject of the following chapter.

CHAPTER V

THE PLIGHT OF INVESTORS

The decline in interest rates since 1929 has proved a very serious problem for those charged with responsibility for the placement of investment funds. In the main, banks, insurance companies, colleges and universities, foundations, and other institutions with endowment or trust funds to invest, as well as individuals, have found it impossible to maintain their investment income at anything approaching pre-depression levels. In this chapter we shall reveal the extent to which the income of these investing groups has been affected by reductions in the rate of return on investments.

I. FINANCIAL INSTITUTIONS

Financial institutions, unlike most business enterprises, are almost entirely dependent upon income from loans and investments. Hence the adverse effects of the decline in interest rates during the past decade are directly reflected in the earning statements of this large group of investors—including banks, insurance companies, building and loan associations, and other financial agencies.

A. Banks

The effects of declining interest rates on the income of banks have been magnified by certain changes that have taken place in the composition of bank portfolios. Even before the depression began, American business corporations were financing an increasing proportion of their industrial and commercial operations by means of new security issues and mortgages, rather than by means of commercial loans. As the volume of available commercial paper decreased, the banks necessarily began shifting a portion of their funds into various classes of "investments" as distinguished from "loans and discounts." This movement has continued since 1929. In addition there has been a sharp decrease in the amounts of new corporate securities placed on the market.[1] Against this shrinkage in private demands for funds there has been a tremendous increase in the low-yield debt of the federal government.

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[1] See pp. 31-43.

This combination of factors has been responsible for a very substantial shift by the banks from higher- to lower-yield earning assets. The loans and discounts of all active banks decreased from 41.4 billion dollars in 1929 to 21.3 billions in 1938, a decline of 49 per cent in the class of bank assets bearing the highest rate of return. Investments increased meantime from 17.3 billions to 26.3 billions, or an increase of 52 per cent in the low-yield assets of the banks. The 9.0 billion dollar increase in investments was accounted for by a 12.7 billion dollar increase in holdings of federal government securities, offset by a 3.7 billion dollar decrease in holdings of all other securities.[2]

Shifts in assets, together with the decline in interest rates, have greatly reduced the income of commercial banks. Data are not available for a precise calculation of the interest income earned annually by all commercial banks. However, the trend can be shown for member banks of the Federal Reserve System, and these account for roughly 85 per cent of all commercial bank assets.

Changes that have taken place in the character of member bank portfolios and in the yield on these assets are shown by the table on page 86. By giving separately the average rate of return on loans and discounts as compared with investments, the table also indicates how the shift in assets has adversely affected bank income.

During the 10 years covered by the table there was a reduction of 12.3 billion dollars in the loans and discounts of this large group of commercial banks. Investments, on the other hand, rose by 8.1 billion dollars. Meantime the rate of return on loans and discounts was reduced about 33 per cent, as compared with a 50 per cent drop in the case of investments. Thus the banks were increasing their holdings of the class of assets showing the greatest decline in yield as well as the lowest rate of return. In 1929 the yield on investments was four-fifths of that on loans and discounts, and in 1938 only three-fifths.

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[2] These figures include all national, state, and private banks (see table, p. 45) and mutual savings banks (see table, p. 88).

CHANGING YIELD AND CHARACTER OF MEMBER BANK EARNING ASSETS, 1929–38[a]
(Dollar figures are in millions)

Year	Loans and Discounts		Investments					
	Rate of Return (Per cent)	Aggregate Amount	Rate of Return (Per cent)	Aggregate Amount	Federal Government Obligations		State and Local Government Obligations	Other Securities[b]
					Direct	Fully Guaranteed		
1929...	6.10	$25,615	4.68	$10,112	$4,161	—	$1,175	$4,776
1930...	5.39	25,018	4.55	10,377	4,046	—	1,299	5,032
1931...	4.98	21,732	4.11	11,700	5,071	—	1,510	5,119
1932...	5.08	16,744	3.89	11,779	5,963	—	1,516	4,300
1933...	4.68	12,917	3.53	12,070	6,981	—	1,651	3,438
1934...	4.33	12,477	3.28	14,454	8,830	$ 431	1,848	3,345
1935 ..	4.16	11,985	2.76	16,913	10,036	1,456	2,082	3,339
1936...	4.09	12,544	2.59	18,839	11,106	1,876	2,221	3,636
1937. .	4.00	13,825	2.57	18,678	10,985	1,846	2,184	3,663
1938...	4.08	13,317	2.46	18,221	10,602	2,078	2,230	3,311

[a] Averages for all call dates for the respective years (including in each case December of the preceding year), from *Federal Reserve Bulletin*, 1931, p. 424; 1934, p. 252; 1935, p. 541; 1937, p. 533; 1938, p. 443; and 1939, p. 374; from *Annual Report of the Board of Governors of the Federal Reserve System*, *1935*, p. 142; *1937*, p. 116; and from *Member Bank Call Reports*, Nos. 76, 78, 79. Percentage yields have been calculated from the dollar figures given for interest and earning assets.

[b] Including obligations of federal agencies not fully guaranteed by the government.

The last four columns of the table throw light on the character of new investments acquired by the member banks. Against the 8.1 billion dollar increase in their total investments, the banks showed an increase of 8.5 billions in their holdings of federal government obligations, a 1.1 billion dollar increase in holdings of state and local government obligations, and a decrease of 1.5 billions in all other securities. The big increase, therefore, was in federal government obligations. Now the highest-yield issues of the government (bonds with 12 or more years to call or maturity date) were paying at an average rate of 2.56 per cent in 1938 as compared with 3.60 per cent in 1929; while Treasury bills yielded only 1/20 of 1 per cent as compared with 4.38 per cent in 1929.[3]

The net effects on bank income of these various portfolio and interest rate changes are clearly shown in the accompanying table. In terms of absolute amounts, the aggregate income that the banks received from all loans and investments reached its low in 1935. In 1938, however, it was only slightly above that for 1935; and was less than half that for 1929—although the comparable shrinkage in earning assets was only 12 per cent. The *rate* of return, on the contrary, has shown no improvement in any year since 1929, the ratio for each year being lower than that for the year before.

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[3] The table on p. 46 shows that in 1938 these low-yield Treasury bills represented almost one-fifth of the aggregate investments of the member banks.

Member Bank Income from All Earning Assets, 1929–38[a]
(Dollar figures are in millions)

Year	Aggregate Interest Income		Loans and Discounts		Investments	
	In Dollars	Rate (Per cent)	Interest and Discounts	Principal	Interest and Dividends	Principal
1929.....	$2,036	5.70	$1,563	$25,615	$473	$10,112
1930	1,822	5.14	1,349	25,018	472	10,377
1931 ...	1,553	4.65	1,073	21,732	480	11,700
1932.....	1,309	4.58	851	16,744	458	11,779
1933.....	1,031	4.13	604	12,917	426	12,070
1934.....	1,014	3.77	540	12,477	474	14,454
1935... .	966	3.34	498	11,985	467	16,913
1936	1,001	3.19	513	12,544	487	18,839
1937 ...	1,033	3.18	553	13,825	481	18,678
1938.....	992	3.15	544	13,317	448	18,221

[a] Sources of data are given in the table on p. 86.

The effects of this tremendous decline in earnings have not been confined to a reduction of dividends paid to the holders of bank stock. Depositors have had to accept lower rates of return on funds placed with the banks. Labor has also been adversely affected, for drastic cuts in the number of bank employees have constituted one of the economy measures by which the banks have tried to bring expenditures within the limits of their reduced income.

The reduction in mutual savings banks earnings is comparable with that for commercial banks. This decline, like that shown for other banks, is explained in part by lower interest rates, and in part by the scarcity of eligible loans and investments other than the low-yield securities of the United States government.

Like the member banks of the Federal Reserve System, the mutual savings banks have increased their investments considerably, particularly their holdings of United States government securities, upon which the rate of return is very low. Unlike the member banks, however, they have slightly increased their total of all earning assets since 1929, and have suffered a comparatively small (15 per cent) decrease in loans. The latter are chiefly real estate mortgages, on which the rate of return has been greatly reduced as a result of government activities in the mortgage field. These various changes are shown in detail in the accompanying table.

EARNING ASSETS OF MUTUAL SAVINGS BANKS, 1929–38[a]
(Figures are in millions of dollars)

June 30	Loans	Investments			
		Total	Federal Government Securities		Other Securities
			Direct	Fully Guaranteed	
1929	5,801	3,776	178	—	3,598
1930	5,896	3,872	152	—	3,720
1931	6,051	4,475	157	—	4,318
1932	6,141	4,195	531	—	3,664
1933	5,941	4,103	550	—	3,553
1934	5,647	4,256	992	69	3,195
1935	5,342	4,511	1,379	189	2,943
1936	5,114	4,853	1,851	231	2,771
1937	5,011	5,178	2,146	246	2,786
1938	4,926	5,176	2,395	290	2,491

[a] Compiled from Annual Reports of the Comptroller of the Currency.

For federal government securities, direct and fully guaranteed, the total has increased from 178 million dollars in 1929 to 2.7 billion dollars, or more than 25 per cent of all earning assets, in 1938. For other securities, however, there has been a decrease of 1.1 billions, and for loans a decrease of 875 millions.

Data are not available with which to show the decline in the average rate of return on the earning assets of mutual savings banks. However, the general tendency can be indicated by the decline in the rates which these mutual institutions pay to their depositors. These institutions do not possess any capital stock, but derive their funds solely from deposits. Accordingly, their net earnings—after allowance for necessary reserves—are divided among their depositors, who are also their mutual owners. On July 1, 1929 (as shown by the data below), the payments thus made by all mutual savings banks in the country were at an average rate of 4.52 per cent, compared with 2.36 per cent on January 1, 1939.[4]

AVERAGE RATES PAID BY MUTUAL SAVINGS BANKS, 1929-39[a]

1929:	
January 1	4.46
July 1	4.52
1930:	
January 1	4.56
July 1	4.60
1931:	
January 1	4.59
July 1	4.49
1932:	
January 1	4.32
July 1	4.09
1933:	
January 1	3.94
July 1	3.50
1934:	
January 1	3.31
July 1	3.24
1935:	
January 1	3.06
July 1	2.84
1936:	
January 1	2.65
July 1	2.57
1937:	
January 1	2.53
July 1	2.50
1938:	
January 1	2.43
July 1	2.38
1939:	
January 1	2.36

For the 15 million depositors who have put their savings in these banks, this reduction in the rate paid by the banks will mean a reduction in aggregate income in 1939 of more than 200 million dollars (2.16 per cent on 10.2 billion dollars of deposits).

B. Building and Loan Associations

These co-operative credit institutions were pioneers in the field of home financing, serving not only the older and wealthier urban areas but also new and struggling communities where risks were great. Their charges were high, particularly in the South and West.

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[4] These rates, computed by the National Association of Mutual Savings Banks, are on a "per bank" basis; that is, they are averages of the rates paid by all mutual savings banks, with small and large banks given the same weight in the average. Weighted according to the amount of deposits on which the several rates are paid, the averages per dollar of deposit are somewhat lower. Averages on the two bases, compiled by the Association for three dates, compare as follows:

	"Per bank"	*"Per dollar deposited"*
1938: Jan. 1	2.43	2.24
July 1	2.38	2.22
1939: Jan. 1	2.36	2.19

However, their small-monthly-payment plan (by which the payment of interest and the amortization of principal were conveniently stretched over a period of some 12 to 15 years or more) was well suited to the needs of borrowers in the lower and middle income groups. Moreover, other lending institutions formerly offered little competition for the types of loans they were making.

Since 1929 building and loan associations have made large reductions in their rates on mortgage loans. In the latter part of 1931 the effective rates of interest charged by the associations ranged from an average of 6.2 per cent in Connecticut to 15.3 per cent in Tennessee, with an average of about 8 per cent for a reporting group of 42 states.[5] These figures for 1931 probably would also give a reasonably good description of conditions in 1929. By 1936 the average for federal savings and loan associations in 44 states and Hawaii was 6.3 per cent, or about one-fifth lower than in 1931.[6] The range was from 5.0 per cent in New Hampshire (not reporting in 1931) and 5.6 per cent in Massachusetts, to 7.3 per cent in Oklahoma.

This reduction in rates is attributable not only to the general trend of money rates, but also to the development of new competition in the home-mortgage field. In recent years the life insurance companies and commercial banks have begun offering amortized loans on real estate at lower rates than those charged by the associations. Government activity in this field, through the agency of the Home Owners Loan Corporation and the Federal Housing Administration, has also exerted pressure for the reduction of mortgage rates charged by the associations.

Specific data are lacking for years since 1936, but a continuation of the downward trend was clearly evidenced by the recent action of two federal government corporations. The Federal Housing Administration on August 1, 1939, lowered the rates on loans it would guarantee in the future. This action, which was taken to meet the lower rates charged by private lending institutions in New York, brought the new rates (including the insurance premium of ½ per cent) to 5 per cent on small home loans, and to 4½ per cent on large-scale rental housing. Four days later the Home Owners Loan Corporation reduced the rate on its mortgage loans to 4½ per cent from 5 per cent. The reduction applies to the unpaid balance of mortgage loans in good standing, rather than to new loans, since the HOLC has made no new loans for some time.[7]

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[5] *Federal Home Loan Bank Review*, December 1937, pp. 76-80. The figures are based on voluntary replies from over 1,200 savings and loan associations to questionnaires sent out in September 1931. The rates represent actual annual cost to borrowers during the life of the loan.

[6] While these institutions are federally incorporated and operate under the control of the Federal Home Loan Bank System, they probably are fairly representative for all associations in 1936.

To the extent that the associations insure their loans with the Federal Housing Administration, a new upper limit has been imposed on the rates they can charge on their mortgage loans. Otherwise these changes do not directly affect the associations, whether they are incorporated under federal or under state law. The only regulation applying to charges made by the federal associations at the present time is that they must conform with state law, but in no case may exceed 8 per cent. Moreover, in some localities, competition from other lenders had already driven the general level of rates down to, or below, those recently fixed by the FHA.

Reduced rates on mortgage loans have meant lower dividends for millions of small savers who are members of the association. In 1929 the average dividend for all associations was probably around 7 per cent. In 1937 it was a little less than half as much. A report prepared by the office of the Governor of the Federal Home Loan Bank System, and summarized in its monthly *Review*, gives the weighted average of annual dividend rates paid by federal savings and loan associations as follows: 3.69 per cent in 1935; 3.44 in 1936; and 3.48 in 1937.[8]

Whether the small rise shown for 1937 represented a temporary interruption in the downward trend or merely a change resulting from the inclusion of some banks not reporting in 1936 is not clear, as the *Review* points out. However, a lower average for the year 1938 is indicated by the fact that a number of associations paying a 4 per cent rate on June 30, 1938, notified their shareholders on July 1 that the December 31 dividend payment would not exceed 3 per cent per annum.

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[7] Its loans were all made on existing houses, as an emergency depression measure.

[8] *Federal Home Loan Bank Review*, December 1938, p. 63. In 1929 the membership of the associations was 12.1 millions; in 1937, 6.2 millions.

In 1929 mortgage loans represented 90 per cent of the assets of all building and loan associations, and in 1937 about 67 per cent. Real estate holdings in 1937 accounted for 18 per cent of total assets. From Annual Reports of the Secretary of the United States Building and Loan League.

C. Life Insurance Companies

These large financial institutions, whose investments are made for the benefit of some 64 million policy holders, have total assets amounting to roughly 27.7 billion dollars. In the main they have selected long-term securities for their portfolios, and thus they still hold a large volume of investments purchased in a high-yield period. Earnings on this remnant are much higher than the rates currently available on the new investments made by the companies.

The average yield on all the investments held by the companies has slowly declined from year to year. As their holdings of older securities are paid off or refunded, their portfolios are more and more heavily weighted with low-income investments. From an average of 5.33 per cent in 1929 the yield on the invested funds of 100 life insurance companies fell to 4.33 per cent in 1938. This is the lowest rate shown by a record covering the 70-year period beginning in 1868. The previous low was 4.58 per cent, in 1902.[9] In money terms, the 1 per cent decline in earnings means an annual loss of income of more than one-quarter of a billion dollars. Percentage yields for the 10 years 1929-38 are given below.[10]

1929	5.33	1934	4.68
1930	5.31	1935	4.47
1931	5.23	1936	4.49
1932	5.08	1937	4.47
1933	4.75	1938	4.33

Important changes in types of insurance company investments have contributed largely to the decline in income. There has been a very great reduction in holdings of real estate mortgages, formerly the most remunerative type of insurance company investments; and an increase in holdings of government bonds, on which yields are low. There has also been an increase in direct ownership of real estate. The aggregate amount of corporate bonds and stock held by the companies has increased with the increase in all classes of earning assets, but in 1938 this class of assets represented about the same

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[9] *The Spectator*, July 6, 1939, p. 15.

[10] *The Spectator Insurance Yearbooks, Life*, or *The Spectator*, July 6, 1939. In the computation of these rates account was taken of idle cash and interest lost by defaults.

CHANGES IN PORTFOLIOS OF 49 LIFE INSURANCE COMPANIES, 1929–38[a]

I. ADMITTED ASSETS, IN MILLIONS OF DOLLARS

Dec. 31	Mortgages	Real Estate	U. S. Government Bonds	Other Government Bonds[b]	Corporate Bonds and Stock	Policy Loans	All Other Admitted Assets	Total Admitted Assets
1929...	6,747	345	316	951	4,714	2,140	848	16,061
1930...	7,014	411	303	1,021	5,169	2,516	867	17,304
1931...	7,089	521	356	1,168	5,408	3,016	909	18,467
1932...	6,796	753	421	1,213	5,342	3,415	1,080	19,020
1933...	6,242	1,102	805	1,265	5,298	3,419	1,116	19,247
1934...	5,496	1,485	1,737	1,470	5,500	3,300	1,112	20,100
1935...	4,949	1,749	2,721	1,653	5,834	3,187	1,282	21,375
1936...	4,703	1,889	3,691	1,788	6,416	3,057	1,344	22,888
1937...	4,758	1,931	4,363	1,893	7,072	3,044	1,081	24,142
1938...	4,942	1,982	4,551	1,989	7,789	3,089	1,108	25,450
II. PERCENTAGE DISTRIBUTION OF ASSETS								
1929...	42.0	2.2	2.0	5.9	29.3	13.3	5.3	100.0
1930...	40.5	2.4	1.8	5.9	29.8	14.6	5.0	100.0
1931...	38.4	2.8	1.9	6.4	29.2	16.4	4.9	100.0
1932...	35.7	4.0	2.2	6.4	28.1	17.9	5.7	100.0
1933...	32.4	5.7	4.2	6.6	27.5	17.8	5.8	100.0
1934...	27.3	7.4	8.6	7.3	27.4	16.4	5.6	100.0
1935...	23.2	8.2	12.7	7.8	27.2	14.9	6.0	100.0
1936...	20.5	8.3	16.1	7.9	28.0	13.4	5.8	100.0
1937...	19.7	8.0	18.1	7.8	29.3	12.6	4.5	100.0
1938...	19.4	7.8	17.9	7.8	30.6	12.1	4.4	100.0

[a] Compiled from *Proceedings of the Association of Life Insurance Presidents, 1938,* pp. 95–96.

[b] Including Canadian and other foreign.

percentage of the total as in 1929. However, the yield on this class of securities has declined from time to time as high-yield issues have been refunded at lower rates of interest or have been paid off and the funds reinvested in various available issues.

The table given above presents a summary of the portfolios of 49 companies that together hold roughly 92 per cent of the admitted assets of all United States legal reserve companies. This shows the several large classes of assets held by the companies, and the changing amounts and proportions represented by each class.

According to the table, real estate and real estate mortgages in 1929 accounted for 44.2 per cent of the aggregate assets of the companies represented, and in 1938 only 27.2 per cent—a decline of 17 points. During the same period the companies' holdings of United States government securities increased from 2.0 per cent of the total to 17.9 per cent. With state and local government bonds also included—and foreign bonds excluded—the comparable increase was from 5.4 per cent to 23.7 per cent.

The decrease in real estate mortgages held by the companies is accounted for in part by mortgage foreclosures. More important, however, has been the shrinkage in aggregate mortgage indebtedness in the country, plus the factor of government activity in both urban and agricultural mortgage fields. It has been estimated that the proportion of the country's total farm indebtedness held by life insurance companies dropped from 23 per cent in 1929 to 12 per cent in 1936. Meantime agencies of the federal government acquired 40 per cent or more of the total.[11]

Normally, direct real estate holdings have constituted only a small proportion of life insurance assets since the insurance laws of the various states, with a few exceptions, restrict investments of this nature to home and branch office properties and those acquired in satisfaction of indebtedness. With the increase in mortgage foreclosures since 1931, however, such holdings have increased considerably. Moreover, a few dwelling accommodations have been constructed by the companies under special and temporary legislation enacted in two states for the purpose of aiding people with low and moderate incomes.

Policy holders old and new have felt the effects of the decline in interest yields. Since the greater part of the insurance written by the life insurance companies in the United States is mutual in character—that is, it is issued by companies that are owned by their policy holders—a shrinkage in the income earned means a decrease in the funds available for dividends payable to policy holders.

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[11] *Proceedings of the Association of Life Insurance Presidents, 1936*, p. 89. The Securities and Exchange Commission has estimated that insurance companies received approximately 400 million dollars of Home Owners Loan Corporation bonds and Federal Farm Mortgage Corporation bonds guaranteed by the U. S. Treasury, in exchange for urban and rural mortgage bonds. Release dated May 15, 1939, "Selected Statistics on Securities and on Exchange Markets," Pt. II, p. 21.

For new and prospective policy holders, the decline in interest yields has resulted in still other disadvantages. Every insurance policy and annuity contract issued by the companies contains a promise to accumulate reserves against the contract at a specified rate of interest. Now the rate written into these contracts must, of course, be one which the issuing company is reasonably sure of earning year after year over a long period of time, for once the contract is written, it is not subject to change. Therefore, as the general level of interest rates has declined, the companies in connection with new policies have been forced to specify lower interest rates for the accumulation of reserves. And, with a lower rate applied, they must charge larger annual payments, or premiums, to cover a given amount of insurance. This applies both to life policies and to annuities of all kinds. Lacking ready and profitable outlets for their funds, many of the companies have also discontinued some types of policies. For example, single payment annuities and agreements which provide for paying the proceeds of life policies over a very long period—say, the duration of two or more lives—are no longer written by many of the companies.

In an effort to sustain income, insurance companies have been turning to new types of investment. In the last two years many insurance companies have purchased large volumes of government guaranteed securities, particularly Federal Housing Administration mortgages, which yield a rate of return about 1 per cent greater than that on high-grade bonds. Reliance for safety is placed in the government insurance feature rather than in the individual real estate development back of the mortgage. The higher rate suggests that the risk is regarded as being greater than that on either corporate bonds or direct government issues; hence there would appear to be a dilution in the quality of the portfolio.

Moreover, insurance companies have been giving much consideration to the possibility of increasing income by direct participation in housing developments. Having gained much experience in the management of real estate properties as a result of extensive foreclosures, it was only natural that the idea should develop that they might well undertake the construction and operation of housing projects. As already indicated, however, legal authorization for such activities has been given in only two states.

The full effects of present rates have not as yet been manifest. Not only is there a very large volume of new insurance money seeking investment every year, but, as we have seen, there are large refundings and maturities which necessitate reinvestment at lower rates. While the average rate of return, as indicated, was still well above 4 per cent at the end of 1938, new investments of approved types yielded scarcely 3 per cent. Without any further reductions in the level of interest rates, the average yield on insurance portfolios in the course of the next ten years might well decline to less than 3.5 per cent.

As we have already indicated, the companies are trying to be prepared for all contingencies by reducing their contract rates and discontinuing certain types of policies. By such means they may be able to maintain stability for themselves, even if interest rates continue to remain low or even decline further. But in any case the amount of insurance required by individuals to provide a given income would have to be greatly increased.

All classes of the population are affected by the decrease in insurance company earnings. While the 64 million holders of life insurance policies include persons of great wealth, by far the greater number are men, women, and children whose small policies represent their principal, if not their only, form of saving. For them a small increase in the annual premium required to provide a given death benefit, or a given amount of protection against sickness or old age, is a very serious matter.

II. ENDOWED INSTITUTIONS

The general decline in interest rates since 1929 has placed endowed institutions in a highly precarious position. The trustees of these institutions are responsible for maintaining and increasing the principal of endowment funds and, at the same time, for securing as high a yield on investments as is compatible with safety and stability of income. They are betraying their trust if they risk their funds on speculative issues in order to maintain income. But a reduction in investment income almost necessarily involves a curtailment of programs to which their institutions are committed—or the equally cheerless alternative of reducing salaries and attempting to bring the costs of institutional activities within the limits imposed by reduced budgets.

In addition to falling interest rates, endowed institutions have faced other changes that have adversely affected both their capital and their income. As in the case of other investors, they have met with defaults on some of the bonds and mortgages in their portfolios, and have found few new outlets for funds received from new gifts and bequests, or from matured or called bonds. They have also been faced with new tax legislation that undoubtedly has retarded the growth of their endowment funds. Of particular importance in this connection is the limit placed by the national government on tax-free gifts that may be made out of income. For present purposes, however, we are concerned with changes in the income from these endowments rather than the capital amount of such funds.

A. Colleges and Universities.

Endowment income provides a very substantial part of the funds used in meeting the costs of education in privately controlled institutions of higher learning. Public statements recently issued by numerous endowed universities and colleges have emphasized the fact that the decline in interest rates has already seriously reduced this source of income, necessitating either a great increase in endowment principal, a raising of student fees, or extensive annual contributions for operating expenses.

The rate of return on collegiate endowments has declined well below pre-depression levels. Both the percentage yield and the actual amount received from endowments decreased sharply from 1929-30 to 1933-34. Some slight improvement was shown in 1935-36. This was followed by a decided upturn in the exceptionally good year 1937-38, which included the very large extra dividends paid by corporations at the end of 1937 to avoid the operation of the undistributed profits tax.[12] These comparisons are based on information compiled by the United States Office of Education, and summarized in the table below.

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[12] It was also exceptional because of the considerable increase in national income.

The first three columns of the table cover all institutions reporting to the Office of Education, or practically all institutions of higher education in the country. The last column covers a smaller group of 269 identical institutions. Both compilations show that 1937-38 was a very good year. According to the figures for all reporting institutions, in fact, this was the first year in which the aggregate dollar income from endowments equalled or exceeded the peak established in 1929-30. Meantime, however, the endowment funds of these institutions had shown a slow but steady growth, so that even in this good year the average of earnings was still well below that for the good years of the late twenties. In contrast with the data for all reporting institutions, the sample group of 269 identical institutions report a lower dollar income in 1937-38 than in the peak year 1929-30, thus raising some question regarding the data reported by the larger group. A partial explanation for the great

ENDOWMENT INCOME OF INSTITUTIONS OF HIGHER EDUCATION
(Dollar figures are in millions)

Fiscal Year	All Reporting Institutions[a]			Endowment Income of 269 Identical Institutions[b]
	Endowment Income	Endowment Fund	Percentage Yield	
1927–28	$58.1	$1,150.0	5.05	$ . . .
1929–30	67.4	1,347.7	5.00	19.8
1931–32	60.9	1,372.3	4.44	19.0
1933–34	55.5	1,472.9	3.77	16.1
1935–36	60.1	1,553.6	3.87	17.8
1936–37	. . .	. . .	. . .	18.1
1937–38	70.7	1,641.1	4.31	18.9
1938–39	. . .	. . .	. . .	18.2

[a] From Biennial Reports of the United States Office of Education as follows: 1926–28, pp. 716–18; 1928–30, Vol. II, pp. 366, 372; 1932–34, Vol. II, Chap. IV, pp. 38, 42; 1934–36, Vol. II, Chap. IV (preprint), pp. 18, 40, 43; 1937–38, preliminary estimate. The figures cover all endowed institutions, whether publicly or privately controlled.

[b] United States Office of Education, *College Income and Expenditures, 1938–39* (preliminary sampling report, p. 12). This report does not state the total of the endowment funds on which this income was earned.

increase in income reported by the larger group in 1937-38 may be that some endowment income earned in earlier years—and set aside for rainy days—was used this year and reported along with current income receipts. The sample also indicates that the recovery of 1937-38 was temporary, and was followed by lower earnings in 1938-39.

Fluctuations in earnings have been greater for small funds than for large. This has been shown by a number of investigations in which average rates have been computed for funds of various sizes. The data given above furnish the longest available series of such annual comparisons.

YIELD ON COLLEGIATE ENDOWMENTS, BY SIZE OF FUNDS, 1926–37[a]
(Percentage return)

Year	Under $2,000,000	$2,000,000 to $15,000,000	Over $15,000,000
1926	5.29	5.03	5.02
1927	5.19	5.20	5.16
1928	5.39	5.15	5.39
1929	5.27	5.10	5.32
1930	5.32	4.99	5.24
1931	5.21	4.81	5.22
1932	4.65	4.55	4.83
1933	3.76	4.19	4.30
1934	3.40	3.98	4.24
1935	3.63	3.95	4.24
1936	3.75	3.80	4.22
1937	4.00	3.88	4.32

[a] Data for the small-sized endowments cover 18 institutions: for the intermediate, 11 institutions in 1926, 12 in 1927, and 13 in all other years; for the large-sized, 6 institutions in 1926, 7 in 1927, and 8 in all other years. The representative character of these samples was tested by comparisons with reports for 105 additional institutions for which data were available for a shorter series of years. American Council on Education, *Endowment Income and Investments, 1926–35*, pp. 10–11; the same, *1926–37*, pp. 8–9. For 1936–37, the data were read from the published charts.

Similar results are shown by the following studies: Trevor Arnett, *Observations on the Financial Condition of Colleges and Universities in the United States* (1937); W. C. Eells, "Income from Endowments," *The Journal of Higher Education*, December 1936; Charles R. Sattgast, "The Administration of College and University Endowments" (unpublished thesis, Columbia University, 1939).

As shown by these figures, the percentage return on small endowments dropped from an average of 5.27 in 1929 to 3.40 at the lowest point reached, or a shrinkage of 35 per cent. For middle-sized endowments the corresponding decline amounted to 25 per cent, and for large endowments, 21 per cent. If the comparison is measured from 1928 instead of 1929, the unfavorable shift in the earning position of the small endowments is further emphasized.[18] By 1937 these small funds had shown a relatively sharp recovery from their depression low, but even so their yield was only about three-fourths what it had been in 1929.

Endowed colleges and universities have sought to protect their income by increasing their holdings of preferred and common stock. The accompanying table shows these shifts as they have affected the principal types of investments.

SHIFTS IN ENDOWMENT PORTFOLIOS, 1929, 1933, 1936
Percentages of Respective Annual Totals for 33 Collegiate Institutions[a]

Investments	1929	1933	1936
Bonds:			
Government	4.38	5.18	4.49
Corporate	44.36	43.53	40.59
Preferred stock	5.77	8.10	9.72
Common stock	13.97	18.63	22.91
Real estate (excluding institutional properties)	12.75	9.54	8.72
Mortgages on real estate	15.83	10.34	8.40
Uninvested cash	0.27	0.87	1.43
All other	2.67	3.81	3.74
All classes	100.00	100.00	100.00

[a] Charles Sattgast, "The Administration of College and University Endowments," p. 57. The breakdown given for bonds is based on Sattgast's data for 22 institutions (the same, p. 68). The percentage distribution of the composite fund of 30 colleges and universities studied by Wood, Struthers and Co. (*Trusteeship of American Endowments*, p. 27) was as follows in November 1931: government bonds, 6.7; corporate bonds, 43.1; preferred stocks, 7.8; common stocks, 10.0; real estate mortgages, 13.5; real property, 13.1; miscellaneous, 5.8.

The percentage of total investments represented by corporate bonds, real estate, and real estate mortgages declined considerably from 1929 to 1936; while an increase of almost the same proportions is shown for common and preferred stock. Other types of investment, including government bonds, maintained a fairly stable position in the "average" portfolio. These changes are very different from those shown by the portfolios of banks and insurance companies, for college and university trustees have a wider range of choice in the placement of their funds.

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[18] In the figures given above no allowance has been made for differences in the accounting methods employed by the various schools concerned. However, similar results are reached in the study made by Sattgast ("The Administration of College and University Endowments") in which data for 45 institutions are adjusted to a fully comparable basis for the 3 years 1929, 1933, and 1936.

Further declines in income seem likely in spite of the improvement in 1937-38 which was referred to above.[14] Universities and colleges, like other institutions, are still benefiting from the fact that they hold a substantial volume of old securities bearing relatively high yields. As these mature or are called for repayment, they are replaced by new low-rate issues. Thus the effects of current trends are cumulative, and the average return on all holdings gradually approaches the level of rates available in the market.

From the standpoint of university financial administration the significance of the problem may be illustrated concretely as follows: If the rate of return on a $100,000,000 endowment declines from 5 to 3½ per cent, the income shrinks $1,500,000. To replace this income, with current yields at 3 per cent, would require the raising of an additional endowment of $50,000,000—a very large sum even in prosperous years.

The importance of the trend of endowment incomes for the educational institutions of the country is suggested by the fact that in 1935-36 such income constituted 22.9 per cent of the total educational and general receipts in the privately controlled colleges, universities, and normal schools of the country, and 2.4 per cent in those publicly controlled.

But the importance attributed to the problem by university educators is even greater than the statistics indicate. Two illustrations will serve to indicate their views.

Looking toward the dismal future, the president of a well-endowed New England college recently declared that if the endowment income of American colleges and universities privately controlled continues to shrink as it has during the past few years, possibly 90 per cent of these institutions face the "threat of government subsidies."

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[14] The following statement made by President Hutchins late in 1939 furnishes a case in point: "Although the University of Chicago has received gifts totaling $6,768,872 in the last ten years toward the endowment of its General Budget, the income for that budget will, according to the estimates, be lower in 1939-40 than in any year since the depression began. The rate has fallen from 6.45 per cent to 3.96 per cent."

Late in 1939 President Hutchins of the University of Chicago referred to the continued decline in the rate of return on invested capital as "the most important educational event of the past year."[15] He argued that unless the privately endowed universities find very effective and far-reaching methods of adjusting their expenditures to their income, they cannot hope to survive. He concluded that, in the present state of American politics, "the decline and death of endowed universities would mean that we should eventually have no universities at all, for the state universities could not hold out unaided against the prejudices of the public and practices of the politicians" on whom they are dependent for funds.

Whether or not we agree with this view, we must conclude that unless a reversal in the trend of interest rates is shortly in evidence, the endowed colleges and universities of the country face an extremely difficult future.

B. The Foundations

A study made in 1938 lists 247 foundations, large and small, engaged in educational and philanthropic activities at home and abroad. Together they cover a wide range of interests in the physical and social sciences, art, medicine, literature, and other fields of learning and public service. Financial data are available concerning only half of the number listed, but for the 123 reporting, aggregate assets totaled roughly 955 million dollars. All of them are primarily dependent on their endowment income for the funds needed to execute their present and future programs of work.[16]

The income of philanthropic foundations has declined sharply during the past decade. Data from the published reports of seven foundations (with aggregate assets of around 550 million dollars) indicate in general the changes that have taken place. In 1929 the *lowest* rate earned by any of them was 4.97 per cent, and for one the rate was 6.57 per cent. In 1938 the *highest* rate earned was 4.59 per cent and one fell below 3 per cent. Aggregate interest and dividend earnings of all seven are given below as percentages of the book value of their combined portfolios.

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[15] *Saturday Evening Post*, Nov. 11, 1939, p. 45.

[16] Raymond Rich Associates, *American Foundations and Their Fields IV* (1939).

1926	5.31	1932	4.85
1927	5.54	1933	4.37
1928	5.62	1934	4.31
		1935	4.24
1929	5.82	1936	4.51
1930	5.55	1937	4.82
1931	5.05	1938	3.67

Foundations covered by our data have increased their holdings of United States government bonds. Meantime there has been a decrease in their holdings of corporation bonds, and a sharp decrease in cash items. The table below shows in detail the shifts made between 1929 and 1938. The figures cover only six of the seven foundations included in calculating the average interest yield, since we were unable to obtain the required portfolio breakdown for one of the seven.

PORTFOLIO CHANGES FOR SIX LARGE FOUNDATIONS, 1929, 1933, 1935, 1938
(Percentage distribution of total earning assets)

Investments	1929	1933	1935	1938
Government bonds:				
United States	2.4	4.5	9.7	21.3
State and local	0.4	0.5	0.4	0.9
Foreign	4.4	3.4	2.1	2.2
Corporate bonds	47.2	55.5	48.5	32.7
Stock:				
Preferred	6.5	9.8	7.4	4.7
Common	25.8	23.5	26.8	31.6
Real estate mortgages	0.1	0.2	0.2	0.2
Cash, including bank deposits and demand loans	13.2	2.6	4.9	6.4
Total	100.0	100.0	100.0	100.0

A glance behind the averages to the figures for the six separate foundations shows that there has not been any uniformity in the policies adopted by the directors of all of them. Two of the six consistently refrained from purchasing the bonds of the federal government. One greatly increased its holdings of such bonds—from 5¼ per cent of total earning assets in 1929 to 53 per cent in 1938. Only three of the six held any common stock in 1929, or even as late as 1935, but all six had some funds placed in this type of security by 1938.

The significant fact is that none of the foundations studied was able to maintain earnings at the 1929 level. On the contrary, for six of the seven considered on page 103, the rate earned in 1938 was the lowest for any of the 13 years (1926-38) covered by this survey. For the group as a whole the reduction in the rate of return on investments from 1929 to 1938 was 37 per cent. This represents a reduction in annual income of more than $10,000,000.

The connection between this reduction in income and the services that these institutions are able to perform for various groups of the world's population is readily apparent. In particular, the change must involve reductions in the grants made by the foundations for work in the fields of medicine, public health, education, and the like. For example, Raymond B. Fosdick, president of the Rockefeller Foundation, has recently observed,

> . . . it is a question how much longer, under present economic conditions, private research institutions can continue to secure adequate support from private sources. . . . The actual decrease of research funds in private institutions presents a problem of crucial importance which is involved with larger questions relating to the whole future of universities, institutes, and laboratories dependent on private sources for support. As far as medical research is concerned—limiting the discussion to this one field—it would be a tragic outcome if through lack of adequate funds the initiative and intellectual leadership which these private institutions have given to medicine were gradually crippled or curtailed.[17]

Obviously, the results of lower investment yields are far-reaching, affecting all groups in the population, including the very poor.

The figures given above are based on the records of a small number of large and well-managed philanthropic foundations. Their experience undoubtedly is fairly typical of what has happened to other foundations of a philanthropic or educational character, and also to the many small funds set up by local charitable agencies, hospitals, churches, fraternal associations, labor organizations, etc. The restriction of investment income for these agencies necessitates either a curtailment of their services or a supplementation of income from their regular supporters or from general community funds.

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[17] *Annual Report, 1938*, p. 28.

III. INDIVIDUAL INVESTORS

The savings of individuals are made available for productive purposes partly through the medium of savings institutions of the types discussed in the preceding sections, and partly by direct investments in securities or other properties. The reductions in income shown for savings institutions have, of course, adversely affected the income of individuals who have provided the invested funds—in the form of bank deposits, insurance premiums, etc. There remains for consideration the way in which the decline in interest rates has affected the direct investments of individuals.

Available data concerning this group of investors are much less complete and satisfactory than for institutions. In the nature of the case there are no regularly compiled series of reports showing the amount and kind of securities they hold, or the yields they have earned on their savings. However, a rough indication of the way they have fared is provided by the income tax data compiled from the returns of individuals (including partnerships).

Individuals, like institutions, have experienced a considerable shrinkage in their investment income since 1929. The table below shows the interest and dividends reported for income tax purposes by individuals (including partnerships) for the years 1929 through 1937—the latest year for which data are available. The principal sums from which these earnings were derived changed from year to year: they were increased by the additional investments made out of new savings, and diminished by the various losses that occurred. Thus the income figures given in the table reflect changes in the aggregate amount of investments held by those reporting, as well as changes in money rates. Since information is lacking concerning the principal sums involved from year to year,[18] the income figures given here cannot be converted to show the changing rate of return earned by individual investors.

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[18] In so far as bond holdings are concerned, an increase from 1929 to 1936 is indicated by a Twentieth Century Fund study, *Debts and Recovery 1929 to 1937*, pp. 319 and 360. The Securities and Exchange Commission, in a release dated May 15, 1939, entitled "Selected Statistics on Securities and on Exchange Markets," Pt. II, pp. 19-20, states that long-term securities held by individuals decreased from 1933 to 1937. A decrease in individual holdings of real estate mortgages from 1929 to 1935 is indicated by Leonard Kuvin (National Industrial Conference Board Study No. 230), *Private Long-Term Debt and Interest in the United States* (1936), pp. 18, 36.

Interest income on the private obligations held by individuals, according to the first column of the table, has declined without interruption throughout the whole period represented. By 1937 the amount reported for this item had shrunk to only 45 per cent of that for 1929. Such a trend is, of course, in general agreement with the course of interest rates as shown in Chapter IV.

Interest received from individual holdings of government obligations—federal, state, and local—on the contrary, fluctuated around the 1929 level, and in 1939 was 11 per cent above that "norm." Meantime, rates on such obligations were falling, and by 1937 were considerably lower than at the beginning of the period. Thus the evidence shows that in several years, at least, individual investors were adding government securities to their holdings. The figures also indicate that these additions were of small proportions in comparison with the aggregate investments of individuals.[19]

INTEREST AND DIVIDEND RECEIPTS REPORTED BY INDIVIDUAL INVESTORS, 1929–37[a]
(In millions of dollars)

Year	Interest on Private Obligations	Interest on Government Obligations[b]	Dividends	Total
1929	1,908	270	4,783	6,961
1930	1,608	262	4,197	6,067
1931	1,338	232	3,114	4,684
1932	1,142	238	1,972	3,352
1933	962	277	1,559	2,798
1934	909	294	1,966	3,169
1935	901	282	2,235	3,418
1936	888	269	3,174	4,331
1937	862	301	3,514	4,677

[a] Compiled from U. S. Bureau of Internal Revenue, *Statistics of Income*, Pt. I, for years specified.

[b] This includes interest received or accrued on wholly or partially tax-exempt obligations of the federal, state, and local governments, as reported in individual returns showing net income of $5,000 and over.

Dividend receipts, as shown by the third column of the table, dropped sharply after 1929, when the decline in business activity was accompanied by the suspension or reduction of dividends by many corporations. In fact, a large part of such reductions was borne by individual investors, for this group holds a large proportion of the preferred and common stock of American business corporations.[20] A low was reached in dividend receipts in 1933, followed thereafter by a gradual but steady rise, with the amount reported in 1937 equal to about 73 per cent of that for 1929.

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[19] In its February 1939 *Bulletin*, p. 22, the Treasury Department shows that on June 30, 1938, individuals (including fiduciaries, estates, etc.) held 8.3 billion dollars of the federal government's direct obligations and 0.9 billions of guaranteed

The final column of the table shows that total interest and dividend income declined from 7 billion dollars in 1929 to 2.8 billions in 1933. Subsequent years show steady improvement. However, the total reported for 1937 amounted to only 4.7 billion dollars, or 60 per cent of that for 1929. These movements roughly parallel the decline and recovery in dividend receipts referred to above, for dividend receipts accounted for almost 70 per cent of the taxable investment income reported by individuals in 1929, and for 75 per cent in 1937.

In general, the investment income of individuals at the end of the period was considerably below that reported for 1929 in spite of the larger (taxable) interest income received from government obligations. As indicated above, this resulted in part from the decline in money rates—allowance being made for the net change, during the period, in the principal sum on which the income was earned. An additional factor of considerable importance was the shift investors were making in the general character of their holdings. Data are not available for showing the magnitude of such changes. It is known, however, that many individuals, disturbed by uncertainties in the business situation, have converted an appreciable proportion of their savings into cash or short-term obligations readily exchangeable for cash. Earnings on such holdings are at very low rates, but safety rather than yield is the purpose of such shifts.

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obligations, or a total of 9.2 billion dollars, this amount representing 22 per cent of the total direct and guaranteed obligations of the government. Similar data, which are available for only one earlier period, show that on June 30, 1937, total individual holdings of government direct and guaranteed obligations amounted to 10.7 billion dollars, and of state and local securities, 8.3 billions. 76 Cong. 1 sess., Hearings on S. Res. 303 before Senate Special Committee on Taxation of Governmental Securities and Salaries (1939), Consolidated Report, p. 14.

[20] Dividend receipts reported by this group usually account for roughly half of the dividends reported paid by all domestic corporations.

IV. BROADER IMPLICATIONS

The effects of declining interest rates upon investment income, which we have been considering in this chapter, are of the utmost economic and social significance. Unless present trends are reversed in the not distant future, drastic readjustments in educational and social service programs and in ways of living will be necessary.

The effects upon the activities and services of privately financed educational and philanthropic foundations are obvious enough: they involve curtailment of such vitally important services as education, public health, and religious and character-building activities. The effects upon the amount of savings that must be made in order to achieve economic security, and the bearing of this on standards of living, while not so readily apparent, are of no less fundamental importance.

In a highly developed pecuniary society, the making of provision for the proverbial rainy day and for security in old age commonly involves the purchase of money market securities. This is true whether such savings take the form of investments made directly by individuals, or of sums placed with savings and insurance institutions. In either case, with interest rates reduced, a proportionately large amount of savings is required to provide for a given level of comfort in old age.

While it has never been possible for investors to gauge their savings programs in the light of definite knowledge as to the precise level of interest rates that will prevail in the future, until recently it appeared that one could reasonably count on a range of something like 4 to 6 per cent. At present a return of 2 per cent, or even less, does not appear impossible for the future. Investors, therefore, must decide whether they will begin now to save a great deal more annually in order to provide for the future, or will take a chance on a possible rise in rates in the future.

Intermediary savings institutions are also confronted with serious difficulties. They have been endeavoring to protect their income through drastic reductions in costs, through increasing the charges on certain kinds of services, and through various shifts in the character of their assets. Meanwhile the flow of new savings has continued to be so large, relatively to available outlets, that they have found it necessary to discourage investment—through the reduction or elimination of interest on deposits, and through increases in charges on certain kinds of insurance policies and the discontinuation of others. Moreover, the full effects of declining interest rates have not been manifested, because many of the older high-yield issues have not as yet been refunded or replaced by those bearing lower rates.

The traditional way of viewing changes in interest rates is that such changes are, in the nature of the case, but temporary. It is argued that a decline in interest rates—or for that matter, a rise—will automatically bring economic readjustments which will shortly affect the rate of interest itself.

From the standpoint of the individual saver, it is argued that if the rate of return should decline very much, he would be less willing to make the sacrifice involved in the act of saving. This analysis is no doubt applicable in many cases, but with individuals who are concerned with making adequate provision for old age, the pressure is certainly in the opposite direction. In any case, it appears that savings habits have thus far not been materially altered as a result of the change in interest rates.[21]

From the standpoint of business enterprises interested in borrowing money through the issuance of securities, it is urged that the lower the interest rate, the greater is the inducement to borrow. We cannot here enter into a discussion of this problem, but it is apparent that we have now had low interest rates for several years and that they have not stimulated any noticeable expansion of either long- or short-term borrowing operations. This suggests that other factors than interest rates are of controlling importance in the decisions of business men.

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[21] The estimates of the volume of individual savings in 1936, to which reference has been made on pp. 38-39, indicate no great change in the pattern of savings as compared with pre-depression years.

CHAPTER VI

THE FINANCIAL STATUS OF CORPORATIONS

The great economic changes which have taken place since 1929 have naturally had important effects upon the financial status of corporations. The purpose of this chapter, and also of the two which follow, is to analyze the resulting changes in corporate finance with a view to throwing light upon present and prospective needs for additional capital. In the present chapter we shall survey the corporate financial trends in aggregate terms covering all corporations in the major fields of industry. In Chapter VII attention will be directed to the financial problems of corporations of varying sizes with especial emphasis upon large corporations. Then, in Chapter VIII, the problems peculiar to medium-sized and small corporations will be considered.

I. CORPORATE FINANCIAL TRENDS, 1926-37

The analysis will be based in the main upon the financial statements of corporations covering the 12-year period 1926 to 1937 inclusive. The most complete information about the actual financial set-up of corporations in the aggregate comes from the financial statements[1] submitted in connection with their income tax returns. The latest year for which these data have been published is 1937.

In studying this information, we shall first consider the general trends with respect to assets and liabilities in each of the major groups of corporations. This will be followed by an analysis of the causes and the extent of the dissipation of assets among all non-financial corporations. Third, special consideration will be given to the reduction of working capital which has occurred. Finally, the extent of the decrease in the capital of commercial banking institutions will be indicated.

A. Corporate Assets

The analysis of general trends in the assets and liabilities of non-financial corporations will be confined to the following classes of industries: railroad; public utility; construction; mining; trade; service; chemical; food, tobacco, and beverage; metal; and textile. The assets of these ten major groups of industries represent approximately 85 per cent of the total assets of all corporations other than financial. The corporations omitted constitute a heterogeneous group representing mixed and relatively unimportant classes. The conclusions stated below are based on two appendix tables which classify the assets and liabilities of each of these groups of corporations.[2]

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[1] **Presented in U. S. Bureau of Internal Revenue, *Statistics of Income*.**

Corporate assets may be grouped into two broad classes—*current* and *fixed*. Current assets include cash and those assets which in the normal course of business may shortly be converted into cash. Fixed or capital assets are properties of a more permanent nature, chiefly plant and equipment, and corporate securities held for purposes of control or a voice in the management.

Fixed assets in most groups are larger than current assets. This is particularly true for the railroad, public utility, mining, and service industries. On the other hand, current assets are more important in the trade and textile groups, owing to the typically large inventories and accounts receivable. Most types of industry keep but a small portion of their total assets in the form of cash and tax-exempt investments. The relative decline of current and fixed assets from 1930 to 1936 will be discussed in a later section (see p. 117).

In most of the groups the aggregate amount of assets declined over the period as a whole. Although there was a considerable increase in total assets from 1926 to 1929,[3] this increase was in most cases more than wiped out in the thirties. The service group, however, shows a continued increase subsequent to 1929, due in part to the incorporation of new companies and of enterprises formerly unincorporated. Although comparable data are not available for 1926, data from other sources indicate that total assets for railroads in 1937 are about the same as in 1926, and that total assets of public utilities although below 1929 are greater than in 1926. However, in the groups in which assets have decreased over the 11-year period, these decreases, as we shall presently show, are attributable in part to a writing down of the book value of assets, and in part to disbursements in excess of available income.

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[2] For tables and discussion of data, see App. C, pp. 363-66.

[3] Mining shows a decrease in this period.

Inventories in every field were low relatively to total assets throughout the period under consideration. The heavy losses sustained on inventories during the depression period of 1920-21 led to a policy of conservatism in the matter of inventories. In consequence, there was a tendency to restrict buying to immediate requirements. The increase in inventories from 1926 to 1929 was, in every field, less than the increase in other assets. Inventories naturally declined during the course of the depression, and they naturally increased somewhat between 1932 and 1936. There was a rapid increase in late 1936 and early 1937. At the end of 1937 the amount of inventories was 12 per cent greater than in December 1936—a rise which was proportionally much greater than the increase in total assets.

B. Corporate Liabilities

Aggregate liabilities—which are of course equal in amount to total assets—are composed of two broad classes of claims on the assets of corporations. The first class—*loan capital*—includes trade credit (bills and accounts payable), bank credit (notes payable), and long-term debt (bonds and mortgages). The second class—*share capital*—represents the interest of shareholders in the business. Loan capital is composed of short- and long-term claims—current liabilities and funded debt, respectively. Share capital is represented by preferred and common stock and surplus. The liabilities of the major groups of corporations are given in the appendix table on pages 365-66.

The proportion of share capital has seldom been less than half the total liabilities. In the railroad, public utility, construction, trade, and service industries, share capital represents approximately 50 per cent of the total liabilities—including both funded debt and current liabilities. In the mining, chemical, metal, and textile industries share capital accounts for from 70 to 80 per cent of the total liabilities. Preferred stock constitutes a relatively small proportion of total share capital. It is particularly low in the mining and construction fields but higher in the utility, metal, and textile industries. Similarly current liabilities are usually small in relation to total loan capital. However, in construction, trade, metals, and textiles, current liabilities represent the more important type of loan capital.

The ratio of share capital to total liabilities declined after 1929. This decline was due in some fields to the write-down in the value of the stock. The shrinkage in stockholders' investment was, however, largely the result of the contraction of the surplus account. This contraction was especially severe in the case of the service, construction, and metal industries. This surplus decrease reflected the decrease of asset values over these years.

In most fields the funded debt showed little or no increase over the period 1926-37. In the case of the railroads and utilities, where the funded debt has been a major element, it declined slightly. In the manufacturing fields, food products, metals, and textiles, there was some increase in the funded debt, but it continued to be small in relation to the total liabilities. Only in the service industry did the funded debt increase so sharply as to become an important part of the capital structure.

The unfunded corporate debt of most types of industry increased in 1933—the beginning of the recovery—both in amount and in relation to total liabilities.[4] It was particularly marked in the case of the railroads, trade, metal, and chemical industries. This increase was due to the rise of business activity which was financed by bank and trade credit.

II. THE DISSIPATION OF ASSETS

In this section we shall concentrate attention upon the magnitude and causes of the decrease in aggregate assets of non-financial corporations as a whole during the period 1930-37.

A reduction in the aggregate assets of corporations may result from four causes: (1) the dissolution of corporations; (2) the paying of debts; (3) the writing down of the book value of assets as a result of property losses and reduced earning power; and (4) disbursements in excess of available income. The aggregate results are reflected in the asset totals for all corporations shown on the balance sheet. However, to ascertain the extent to which the decrease is attributable to disbursements in excess of earnings, it is necessary to analyze the income accounts.

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[4] The sharp decrease in the unfunded debt and increase in the funded debt from 1936 to 1937 are largely due to a reclassification by the Bureau of Internal Revenue of short-term notes payable.

The reduction in assets from 1929 to the end of 1937 aggregated about 32 billion dollars. The assets of all non-financial corporations, and of each of the major groups, for the three years 1926, 1929, and 1937 are shown in the accompanying table.

Assets of Corporations by Major Industrial Groups, 1926, 1929, 1937[a]
(In millions of dollars)

Type of Industry	1926	1929	1937
Agriculture and related industries	2,050	2,140	1,987
Mining and quarrying	12,172	11,832	9,146
Food and kindred products	8,884	9,800	8,288
Textile products	6,260	6,623	4,455
Leather and its manufactures	1,227	1,198	751
Rubber products	1,376	1,422	1,006
Forest products	4,023	3,672	2,179
Paper, pulp, and products	2,097	2,573	2,283
Printing, publishing	2,384	2,838	2,603
Chemicals and allied products	12,258	14,031	11,755
Stone, clay, glass	2,237	2,393	1,983
Metal and its products	21,223	23,079	18,796
Other manufacturing	2,759	2,654	1,625
Construction	2,358	3,095	1,702
Transportation and other public utilities	57,245	77,792	64,648
Trade	19,140	21,842	18,853
Service	4,873	7,820	10,835
Miscellaneous	160	252	61
Total	162,726	195,056	162,956

[a] From U. S. Bureau of Internal Revenue, *Statistics of Income for 1926*; the same, *1929* and *1937*. Data for intervening years are included in the appendix table, p. 367.

It will be observed that total assets decreased from a maximum of 195 billion dollars in 1929 to 163 billions in 1937. The aggregate figure for 1937 is almost identical with that of 1926. That is to say, the 32 billion dollar increase in the aggregate assets of all non-financial corporations between 1926 and 1929 was matched by a like decrease in the ensuing eight years. It should be noted here that the low point in total assets was reached in 1935 at 158.4 billions.[5] The increase in assets in 1936 and 1937 was in large part due to an expansion of inventories.

The decline in assets over the period as a whole occurred in every group except the so-called service industries—a broad classification including the professions, hotels and restaurants, amusements, and a miscellany of small-scale activities. The greatest decrease is found in the broad group which includes transportation and other public utilities, amounting between 1929 and 1937 to 13 billion dollars. The next greatest decline was in metal and its products, amounting to 4.3 billions. In percentage terms the most important declines are shown in the construction, leather, textile, and rubber groups.

In contemplating these aggregate asset figures the reader should bear in mind two facts. First, since they include all corporations, the changes reflect the organization of new corporations and the dissolution of old ones, as well as changes in the average size of corporations. Second, they reflect bookkeeping adjustments of values either upward or downward as the case may be. As we shall now proceed to show, the larger part of the decrease in assets since 1929 is not attributable to write-downs but to disbursements in excess of the amount of available income.

About 20 billions of the decrease in assets is due to disbursements in excess of available income. In order to explain this dissipation of assets it is necessary to discuss briefly the sources of gross corporate income and the varied purposes for which disbursements are made. The gross income of corporations represents the proceeds of sales of goods or services, plus such non-operating income as may be received. From this gross income the company must first meet operating expenditures in connection with the purchase of materials and supplies and for salaries and wages to its employees. Next it must pay interest and rentals on borrowed funds or property, and taxes to the government. Many of these cash disbursements are in payment of contractual obligations, and all of them constitute "prior" claims against gross income.

The allocation of the balance of the gross income, if any, is determined by corporate policy. It is ordinarily used for the following principal purposes: (1) to pay dividends on share capital; (2) to provide for the replacement of plant and equipment used up in the productive process—which is represented in the financial statements by the depreciation allowance; and (3) to increase either plant and equipment or working capital assets.

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[5] See App. C, p. 367.

The dissipation of assets from 1930 through 1937 resulted from the fact that allowances for depreciation, depletion, and bad debts, plus cash dividends, exceeded the available income. The following table shows the annual disposition of corporate gross income for all classes of corporations other than financial for the years 1926 to 1937 inclusive, and the resulting changes in assets.

DISPOSITION OF GROSS INCOME OF ALL CORPORATIONS, EXCEPT FINANCIAL, 1926–37[a]
(In millions of dollars)

Year	Gross Income	Cash Operating Expenditures	Income before Cash Dividends and Allowances for Bad Debts, Depreciation, and Depletion	Cash Dividends	Allowances for Bad Debts	Allowances for Depreciation and Depletion	Resulting Changes in Assets
1926....	129,979	119,036	10,943	4,967	533	3,589	+1,854
1927....	131,342	121,351	9,991	5,354	533	3,607	+ 497
1928....	137,769	126,077	11,692	5,760	557	3,827	+1,548
1929....	144,685	132,042	12,643	6,757	602	4,117	+1,167
Total.	543,775	498,506	45,269	22,838	2,225	15,140	+5,066
1930....	124,879	116,959	7,920	6,555	650	4,108	−3,393
1931....	94,520	90,055	4,465	4,870	679	3,858	−4,942
1932....	71,477	69,492	1,985	3,101	739	3,577	−5,432
1933 ...	64,623	60,201	4,422	2,531	705	3,387	−2,201
1934....	90,983	85,323	5,660	3,561	587	3,283	−1,771
1935 ...	103,320	96,528	6,792	4,361	498	3,307	−1,374
1936....	117,451	108,995	8,456	5,424	484	3,290	− 742
1937....	129,874	121,091	8,783	5,544	442	3,503	− 706
Total.	797,127	748,644	48,483	35,947	4,784	28,313	−20,561

[a] For sources and discussion of data, see App. C, pp. 368–69.

It will be seen that in every year in the late twenties, the income available, before deductions for cash dividends and the various allowances, exceeded the amount of the dividends and the requirements for bad debts, depreciation, and depletion. The result was an increase in either fixed or working capital assets. The increase in assets aggregated 5.1 billion dollars in the four years 1926-29.

In the following eight years, however, the allowance for bad debts, depreciation, etc., plus cash dividends, regularly exceeded the available income—as shown in column 3 of the table. Since the available income was not sufficient to meet these various disbursements and allocations, there was a decrease in fixed or working capital assets—in amounts reflected in the last column. The total reduction amounted to 20.6 billion dollars.

That is to say, after paying dividends and providing for bad debts, depreciation, and depletion, the income in the late twenties was sufficient to permit substantial additions to assets. But in the thirties the shrinkage of income necessitated one of three things: a curtailment of cash dividends; a sharp reduction of the various allowances; or the using up of assets.

Asset Dissipations of All Companies, except Financial, Reporting No Net Income, 1930–36[a]
(In millions of dollars)

Year	Current Assets	Fixed Assets	Total Assets
1930	2,236	1,430	3,666
1931	2,878	2,190	5,068
1932	3,027	2,361	5,388
1933	1,009	1,825	2,834
1934	873	1,504	2,377
1935	823	1,344	2,167
1936	508	853	1,361
Total dissipation	11,354	11,507	22,861

[a] For discussion of data, see App. C, pp. 368–69. Segregated data for companies reporting net and no-net income are not as yet available for the year 1937.

Under the conditions prevailing the corporations evidently considered it sound policy to continue dividend payments on a substantial basis and to make the customary charges for depreciation—since physical depreciation continues even though the scale of operations is reduced. The inevitable result of the policy pursued was the dissipation of assets, which of course necessitated corresponding adjustments in the surplus and capital accounts.

The dissipation of assets was of course found chiefly in companies reporting no net income.[6] The figures thus far given relate to all corporations and include those reporting net income after all necessary allowances had been made, as well as those which had a deficit. Attention will now be focused upon the extent and nature of the dissipation of assets among the companies which showed no net income during the period under consideration. The table on page 117 shows the asset dissipations of these unprofitable corporations during the years 1930-36. The total of 22.9 billions compares with 19.9 for all corporations in these years, indicating that the profitable corporations in the aggregate were able, out of earnings, to improve their asset position by 3 billion dollars. It will be noted that

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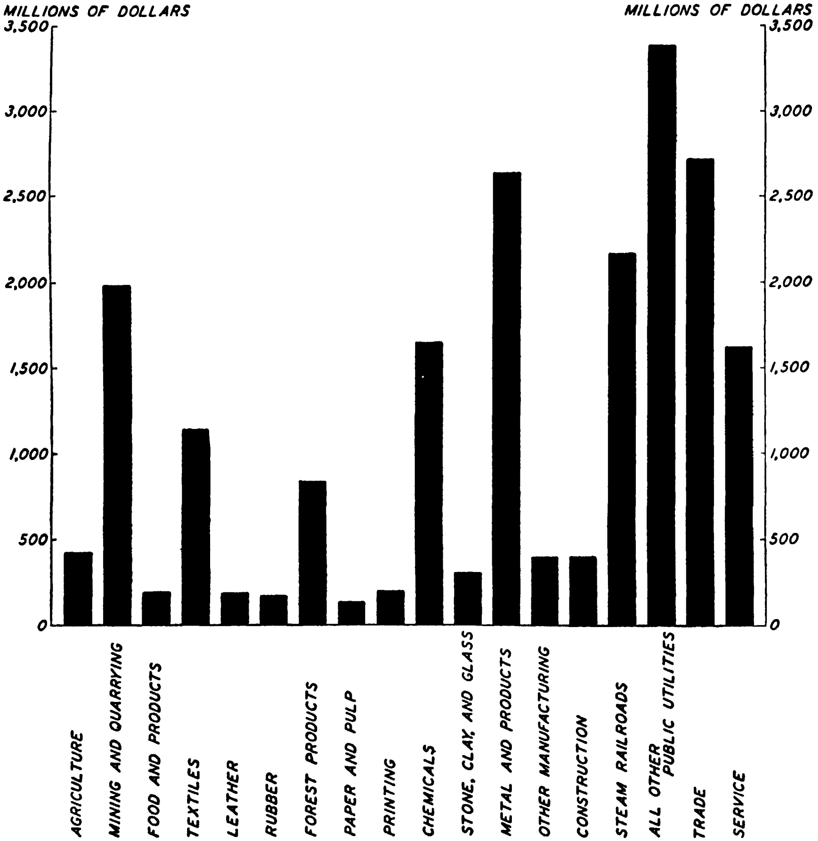
[6] Companies reporting a net income would in some instances show a dissipation of assets on our basis of calculation.

Dissipation of Assets by Industrial Groups, 1930-37[a]



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[a] For data, see App. C, p. 369.

the dissipation of assets among unprofitable corporations was about equally divided as between fixed and working capital.

The extent to which assets have been dissipated varied widely in the several groups of industries. The changes from 1930 to 1937 for the major industrial divisions are shown in the chart on page 118.

The chart shows large dissipations of assets in mining, metal products, railroads, public utilities, and trade, in each case amounting to 2 billion dollars or more. The small dissipations in nine groups aggregate less than those in either metal products or trade. The seven groups showing dissipations of more than 1 billion dollars account for nearly 85 per cent of the aggregate for the 18 industries shown.

III. THE DECREASE IN WORKING CAPITAL

A fundamental problem of financial administration is the maintenance of an adequate supply of working capital. Working capital is used here in the sense of "*net* working capital" or the excess of current assets over current liabilities. Working capital thus represents a margin of available liquid assets which can be used for any corporate purpose. It provides the essential element of flexibility in the financial position of the corporation. A corporation builds up its working capital position either by allocating a portion of the proceeds of security sales to working capital, by retaining a portion of its net income, or by accumulating the net funds appropriated for depreciation and depletion. Such allocations, retentions, and accumulations may take the form of cash, securities, receivables, or inventories.

The amount of working capital of non-financial corporations as a whole showed a material decline from 1930 to 1936. The trend in the working capital position of the major groups of industrial corporations for selected years from 1926 to 1936 is shown in the table below.[7] As will be seen from the table, the decrease since 1929 is particularly noticeable in mining, textiles, forest products, chemicals, metals, railroads, and service industries. It will be noted that in the case of the railroads and service industries, working capital has become a minus quantity.

[7] Railroads and public utilities are included in this table since it was possible to obtain working capital data for each group separately.

WORKING CAPITAL POSITION OF NON-FINANCIAL CORPORATIONS, FOR SELECTED YEARS[a]

Type of Industry	Net Working Capital (In millions of dollars)					Current Ratio				
	1926	1929	1932	1935	1936	1926	1929	1932	1935	1936
Agriculture	−34	126	20	65	79	0.92	1.34	1.05	1.17	1.21
Mining	1,203	1,242	515	201	393	2.33	2.27	1.67	1.17	1.38
Food, tobacco, etc.	2,236	2,398	2,185	2,311	2,581	3.05	3.88	3.73	3.18	3.38
Textile	2,272	2,372	1,320	1,543	1,273	3.11	3.06	3.48	3.21	3.29
Leather	549	569	366	386	396	3.61	3.82	4.89	4.09	3.57
Rubber products	482	440	257	330	337	4.03	3.40	2.26	4.11	3.65
Forest products	906	906	420	423	480	2.31	2.52	2.15	2.32	2.49
Paper, pulp, etc.	490	583	343	460	491	3.58	3.96	2.99	3.14	3.44
Printing, publishing	441	543	350	539	543	2.29	2.45	1.62	2.70	2.66
Chemical	2,803	2,897	2,398	2,139	1,092	4.19	3.96	3.33	2.47	3.05
Stone, clay, glass	557	564	364	433	464	3.81	3.80	3.35	3.46	3.51
Metal	7,257	8,081	5,042	5,005	4,315	4.60	5.36	3.67	3.44	3.09
Other manufacturing	988	885	514	514	622	3.75	3.29	3.37	3.33	4.24
Construction	558	638	414	365	444	1.87	1.75	1.93	1.98	2.02
Railroad	515	239	−247	−742	−833	1.40	1.16	0.81	0.59	0.61
Public utility	353	284	236	307	275	2.13	1.66	1.64	1.88	1.74
Trade	7,725	7,983	5,324	5,914	6,469	2.55	2.39	2.55	2.18	2.20
Service	89	555	86	−220	−222	1.11	1.58	1.09	0.82	0.84

[a] Data for railroads are for Class I roads, from *Statistics of Railways in the United States;* for utilities, Standard Statistics, *Trade and Information Bulletin;* for other types of industry, U. S. Bureau of Internal Revenue, *Statistics of Income.*

Figures are not given for the year 1937, because the Treasury Department has changed its classification of "notes and accounts payable" by excluding therefrom "short-term" notes and bonds due within one year. The result of this reduction in current liabilities is to improve the apparent working capital position and current ratio. The 1937 figures are therefore not comparable with those of preceding years.

The current *ratio*—that is, the amount of the current assets as compared with the amount of the current liabilities—is also shown in the accompanying table. In general, though not in all cases, the ratio has declined. More detailed consideration will be given to the current ratio in connection with the discussion of large and small corporations respectively in the following chapter.[8]

IV. INCOME AVAILABLE FOR INTEREST AND DIVIDEND PAYMENTS

This discussion of corporate finance will be concluded with a brief analysis of the effects of recent economic developments upon earnings. We shall first compare net income after all taxes and depreciation charges have been met with interest requirements on both funded and unfunded debt. Second, we shall indicate the income available for dividend payments. In order to place the data for all companies on a comparable basis, the income available for dividends is shown as a yield in dollars on each $100 of invested shareholders' capital, including surplus. The detailed data on which the following statements are based will be found in the table on page 122. The data are available only for the years 1931-37.

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[8] See pp. 131-39.

Railroad income has been continuously low in relation to interest requirements. In a number of years it was actually less than interest requirements. In the comparatively good years 1936 and 1937 the coverage was only 1.37 and 1.20 times. This situation is attributable to two factors—the heavy funded debt of the railroad industry, and the exceptional difficulties with which this industry has been confronted in recent times. Earnings on share capital show wide fluctuations. In most years there was a deficit for the railroad industry as a whole.

The public utility industry has shown a remarkable stability, both in the amount of coverage for interest requirements and in earnings on share capital. The range of the interest coverage has been from 1.87 to 2.42 times; while the earnings per $100 of share capital have varied from 4.83 to 7.66 per cent.

The mining industry shows a substantial deficiency of income to meet interest charges from 1931 to 1933, but a fair recovery in the ensuing years. Earnings on share capital show a similar trend, rising to about 3.3 per cent in 1937.

The food, beverage, and tobacco group, owing to the small amount of bonded indebtedness, shows an excellent coverage of interest requirements. Earnings on share capital also were reasonably steady and satisfactory, ranging from a low of 3 per cent in 1932 to 9.7 per cent in 1936.

Textile earnings show wide fluctuations. This group earned much less than interest charges in 1931 and 1932, but there was a sharp recovery in 1933. Earnings on share capital since 1933 have fluctuated from 0.4 per cent to 5.2 per cent.

The chemical group of industries, which includes (in the *Statistics of Income* classification) pharmaceutical products, fertilizers, and oil, as well as chemicals proper, shows adequate coverage of

CORPORATE INCOME COMPARED WITH INTEREST OUTGO, AND EARNINGS WITH SHARE CAPITAL, 1931–37[a]

(In dollars)

I. INCOME (AFTER TAXES AND DEPRECIATION) PER DOLLAR OF INTEREST PAID

Type of Industry	1931	1932	1933	1934	1935	1936	1937
Agriculture	−2.35	− 2.09	−0.47	−0.50	1.58	2.42	1.85
Mining	−1.37	− 1.26	−1.01	1.38	1.44	2.77	4.38
Food, beverage, and tobacco	4.32	3.57	5.48	7.69	8.48	11.91	7.65
Textile	−3.76	− 6.63	4.67	1.45	2.97	6.38	3.21
Leather	−3.71	− 5.33	6.20	4.00	7.00	7.00	4.00
Rubber products	0.10	− 0.58	1.29	1.42	2.00	6.50	4.87
Forest products	−4.09	− 5.68	−1.67	−1.18	0.21	3.22	3.91
Paper, pulp, and products	0.85	− 0.57	1.52	2.96	2.25	4.95	5.69
Printing and publishing	2.97	0.34	2.11	2.16	6.32	8.11	7.73
Chemical	1.90	1.47	2.67	6.04	9.60	12.65	13.04
Stone, clay, and glass	−0.61	− 4.31	[b]	3.77	6.00	10.91	12.09
Metal	−0.61	− 5.70	0.09	3.73	8.92	12.93	11.69
Other manufacturing	−1.24	− 4.10	−0.92	4.50	10.00	17.50	13.42
Construction	1.26	− 1.42	−1.09	−1.23	0.58	3.00	3.69
Railroad	1.26	0.75	0.99	0.97	1.02	1.37	1.20
Public utility	2.42	2.02	1.88	1.87	1.98	2.13	2.18
Trade	−0.92	− 3.23	1.20	3.19	4.19	6.35	5.54
Service	0.72	− 0.49	−0.48	0.12	0.39	0.86	0.97

II. EARNINGS PER $100 OF SHARE CAPITAL

Type of Industry	1931	1932	1933	1934	1935	1936	1937
Agriculture	−5.27	− 5.83	−2.90	−3.33	0.91	2.21	1.18
Mining	−2.68	− 2.52	−2.23	0.41	0.47	1.75	3.29
Food, beverage, and tobacco	4.80	3.37	5.36	7.37	8.56	9.68	6.82
Textile	−5.69	− 7.31	3.48	0.44	1.91	5.24	2.29
Leather	−4.91	− 6.60	3.68	2.69	2.62	5.25	3.11
Rubber products	−2.43	− 4.18	0.54	0.51	1.21	6.76	1.39
Forest products	−8.33	−10.28	−3.84	−2.98	−1.17	2.82	3.26
Paper, pulp, and products	−0.51	− 3.38	0.84	3.08	2.06	5.33	6.17
Printing and publishing	2.45	− 1.36	1.08	3.68	6.40	7.97	6.51
Chemical	1.16	0.63	1.72	3.69	5.78	6.87	6.81
Stone, clay, and glass	−1.97	− 6.06	−1.38	1.61	4.08	7.58	7.46
Metal	−1.50	− 5.99	−0.71	2.28	6.24	9.33	10.01
Other manufacturing	−4.26	− 8.24	−2.67	2.72	6.85	9.07	7.79
Construction	0.71	− 6.68	−4.62	−3.21	−0.61	2.77	3.46
Railroad	1.51	− 1.39	0.01	−0.10	0.16	1.88	0.27
Public utility	7.66	6.04	5.28	4.83	5.37	6.17	6.21
Trade	−3.55	− 6.77	0.30	3.05	4.32	7.07	5.99
Service	−1.07	− 7.73	−8.10	−5.40	−4.34	−0.98	−0.22

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[a] Data for railroads are from Interstate Commerce Commission, *Statistics of Railways in the United States;* for utilities, Standard Statistics, *Trade and Information Bulletin;* for other types of industry, U. S. Bureau of Internal Revenue, *Statistics of Income.* All income and earnings data from *Statistics of Income* are adjusted to exclude capital gains and capital losses. The minus sign indicates deficits in income and earnings.

[b] Net income is zero.

interest requirements even in the years of deep depression, and marked improvement in the years which follow. Earnings on share capital fell to 0.6 per cent in 1932 but rose steadily thereafter to nearly 7 per cent in 1936 and 1937.

Metals show the widest fluctuations of any group. There were huge deficits, even on interest account, in 1931-32, but a highly satisfactory situation in 1935-37. There was a substantial deficit in the earnings on share capital between 1930 and 1933, but earnings of 9 to 10 per cent are recorded for the years 1936 and 1937.

The construction industry shows a prolonged deficiency of income. It was not until 1936 that interest charges were covered.

The earnings of the trade group, except in 1931-33, were relatively good. The earnings on share capital reached 6 to 7 per cent in 1936-37.

The service group of industries shows a continuous deficiency of income. In no year were interest charges covered.

The agricultural group failed to earn the interest requirements until 1935, and the coverage thereafter has been meager. The forest products group shows a similar trend. The stone, clay, and glass industries show wide fluctuations, with an eminently satisfactory earnings position since 1934.

The paper and pulp industry shows only two years during which income was less than interest requirements. Comparatively satisfactory interest coverage and earnings on share capital characterize this group. The situation in the printing and publishing industry was also satisfactory, and the earnings were at a higher level than in the paper and pulp industry.

Both the rubber and leather groups of industries experienced fluctuations in earnings. In both cases there were large deficits in the acute depression, and a reasonably good recovery in the ensuing years.

The earnings position of American industry as a whole is evidently such as to furnish a sound basis for the raising of capital. While the comprehensive data furnished by the income tax returns are not available for years later than 1937, the trend since then is a matter of common knowledge. There was a sharp decline in the second half of 1937 which continued more or less throughout 1938, followed by a substantial recovery in 1939. Since the figures given are the averages for all groups, they do not of course afford an adequate picture of the strength of the successful corporations or the weakness of the unsuccessful companies.

It is altogether clear, however, that with the exception of the railroad and the service groups of industry the interest coverage in 1936 and 1937 was in general terms sufficient to warrant *borrowing* operations. Earnings on share capital in the utility, food products, chemicals, metals, trade, and paper and printing industries were approaching a level high enough to be attractive to equity investors.

The fact that a comparatively small amount of new capital in these fields was raised either through bond sales or stock flotations is evidently to be attributed to factors other than inadequate earning power.

V. DISSIPATION OF CAPITAL OF FINANCIAL CORPORATIONS

In order to round out this survey of the financial status of American corporations, it is essential to consider briefly the trends in connection with financial corporations. For want of adequate data, the analysis will be confined chiefly to trends in the field of commercial banking.

As a result of the liquidation of a large number of banking institutions during recent years the total assets of the commercial banks of the country have shown some decline. The aggregate assets (and liabilities) of all commercial banking institutions[9] in the United States stood at 62 billion dollars on June 30, 1929 and at 61 billions on June 30, 1939, a reduction of 1 billion dollars. Meanwhile, however, the supply of capital (measured by capital stock, surplus, undivided profits, and special reserves) declined from 8.7 billions in 1929 to 6.9 billions in 1939. Mutual savings banks showed an increase in total assets of 1.8 billions and in the capital items of 360 millions.

The reduction in the aggregate capital of commercial banking institutions is in large part attributable to bank failures. There was, however, a substantial dissipation of assets during the depression years as a result of disbursements in excess of available income. In the five fiscal years 1930 to 1935, the net reduction from this cause for national banks alone amounted to 1.2 billion dollars. Income data are not available for state and private banks; but on the basis of comparative assets it would appear that the dissipation among state and private institutions must have amounted to something like 2 or 3 billions.

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[9] Includes all national and state banks and trust companies.

The commercial banking system is today greatly undercapitalized. The fact that the cash position of commercial banks has improved greatly in recent years may, at first thought, suggest that the banks are in a very strong position. It is true that they have large unused lending capacity. But it is not true that the deposits are as adequately protected by capital as was formerly the case. In 1929 the aggregate deposits of all commercial banking institutions amounted to 48.8 billion dollars, whereas in 1939 they had risen to 53.5 billion dollars. As a result the ratio of gross capital to deposits had fallen from 17.8 per cent in 1929 to 12.8 per cent in 1939. To restore the former ratio of gross capital to deposits would require approximately 3 billion dollars of new capital.

The question must be raised, however, whether a ratio of gross capital to deposits as high as that existing in 1929 is necessary. The answer is that events of succeeding years proved that the 1929 ratio was not high enough in view of the prevailing character of bank assets at that period. The better the quality of the assets the less the ratio of capital to deposits need be. In view of the large holdings of cash and short-time governments at the present time a ratio of 12.8 is perhaps reasonably adequate. But if we should have a large expansion of commercial bank credit, for industrial, agricultural, and financial purposes, as would be required in the event of a thorough-going recovery and expansion movement, the ratio of capital to deposits would need to be much larger than is now permissible. In view of our banking experience, it would seem that a ratio at least as high as that of 1929 is necessary in the interests of banking stability. The fact that bank deposits are guaranteed by the Federal Deposit Insurance Corporation in no wise lessens the importance of adequate banking capital. The success of the deposit insurance system depends in last analysis upon the adequacy of banking capital.

The reduction in investment banking capital since 1929 has been large, amounting to something like 700 to 800 million dollars. Other financial institutions, particularly building and loan associations and joint stock land banks and mortgage companies, have also suffered large reductions in capital. These losses have, however, to a considerable degree been replaced by government agencies operating with public capital derived from deficit financing.

In the financial field as a whole it seems clear that the amount of capital required to restore the 1929 position would amount to from 4 to 5 billion dollars.

RECAPITULATION OF CORPORATE FINANCIAL REQUIREMENTS

The data presented in the foregoing analysis have indicated the various ways in which the corporate financial structure of the United States has been affected by the economic changes of recent years. The results may be recapitulated as follows:

1. The aggregate assets of non-financial corporations declined between 1930 and 1937 by approximately 32 billion dollars. Of this total about 20 billions represented a dissipation of assets occasioned by disbursements in excess of available income. The balance was the result of book value readjustments and corporate dissolutions.
2. The commercial banking system is undercapitalized to the extent of approximately 3 billion dollars. The deterioration in the capital structure of financial corporations as a whole doubtless amounts to 4 or 5 billion dollars.
3. The decrease in assets of industrial corporations occurred in all of the major groups of industry. It was largest in the following fields: transportation and other public utilities, trade, metals and metal products, and mining and quarrying.
4. The net working capital position (current assets minus current liabilities) was appreciably weakened. This generalization applies to industrial corporations as a whole; that it is particularly applicable to medium- and small-size companies will be revealed in the ensuing chapters.
5. The debt situation, except in the railroad and service fields,

is satisfactory, presenting no real barrier to the raising of new capital.

6. The earnings situation, except in the railroad and service fields, appears reasonably adequate as a basis on which to raise new capital. This statement again is based on the aggregate figures for the various industrial groups, and does not of course prove that many corporations within each group may not be in an unsound credit position.

It is not possible, on the basis of this analysis, to make any precise quantitative statement with respect to the magnitude of corporate financial requirements at the present time. This is because the dissipation of assets of industrial corporations has occurred during a period when the productivity of capital has been increasing. It is clear, however, from the data which have been assembled in this chapter that, in the financial field, several billions of additional capital would be required to finance a strong industrial recovery and expansion movement, and that the working capital needs of industrial corporations generally would be greatly increased. The fixed capital requirements in connection with the replacement of plant and equipment and the expansion of productive capacity sufficient to care for the needs of an increased population, and to permit higher standards of living for the population as a whole, will be given consideration in Chapter IX.

CHAPTER VII

CAPITAL PROBLEMS OF CORPORATIONS OF VARYING SIZES

The preceding chapter was devoted to presenting a broad general survey of corporate financial trends and problems. Since the discussion was focused upon *all* corporations, problems pertaining to corporations of varying sizes were neglected. It is therefore necessary to carry the analysis further and to study the special problems relating respectively to corporations of large and of medium and small size.

The view has been expressed in the hearings before the Temporary National Economic Committee that large corporations can obtain capital but do not need it, while small ones need capital but cannot get it. The inference drawn from this belief is that we cannot count upon an expanding flow of funds into private investment to restore prosperity and employment—that the government must of necessity enter the field both as lender to small-scale enterprises and as the direct financier of a wide variety of public and quasi-public enterprises. The issue here is obviously one of fundamental significance, requiring the closest possible analysis.

In the present chapter, accordingly, we shall first analyze the existing corporate set-up in the United States during the latest year for which comprehensive data are available. We shall show the number and importance of companies of varying sizes and the character of their capital structure. The chapter will be concluded with a special analysis of the capital requirements of large companies. The following chapter will then analyze the situation with respect to medium-sized and small companies.

I. NUMBER AND IMPORTANCE OF COMPANIES OF VARYING SIZES

The significance of business establishments of varying sizes may be indicated both in terms of assets and in terms of the employment which they provide. In the following analysis we shall show the non-financial corporations separately because it is these corporations which are the chief potential borrowers in the financial market and also the principal furnishers of employment. The only inclusive figures are those compiled by the Treasury in *Statistics of Income*, and the latest year for which these data are available is 1936. The data are assembled in the accompanying table. The figures given are cumulative percentages of the respective totals.

BUSINESS ESTABLISHMENTS CLASSIFIED BY SIZE

I. CORPORATIONS, IN TERMS OF ASSETS, 1936[a]

Asset Classes (In thousands of dollars)	All		Non-Financial	
	Number	Assets	Number	Assets
Under 50	54.7	1.4	59.5	2.1
Under 100	69.0	2.8	73.6	4.1
Under 250	83.1	5.8	86.5	8.8
Under 500	89.9	9.1	92.3	12.3
Under 1,000	94.2	13.2	95.8	17.1
Under 5,000	98.6	25.8	99.0	30.4
Under 10,000	99.3	32.0	99.5	36.8
Under 50,000	99.8	47.7	99.9	53.1
Under 100,000	99.9	55.7	99.9	61.9
All corporations	100.0	100.0	100.0	100.0

II. ALL ESTABLISHMENTS, IN TERMS OF EMPLOYMENT,[b] JULY–DECEMBER, 1937

Employees (Per establishment)	Number of Employers	Number of Employees[c]
Less than 10	76.2	11.0
Less than 50	94.4	28.5
Less than 100	97.2	37.5
Less than 300	99.14	52.5
Less than 500	99.52	59.5
Less than 1,000	99.79	68.0
Less than 5,000	99.975	83.5
Less than 10,000	98.989	87.5
All concerns	100.000	100.0

Small corporations are very important numerically, but relatively

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[a] Calendar year data, based on table in *Statistics of Income for 1936*, Pt. II, pp. 92–93, 117–18.

[b] *Social Security Bulletin*, September 1938, p. 22.

[c] These figures cover what are called employee *wage items*. Since they include disbursements to all wage earners, however short the period of employment, they involve a certain amount of duplication because of a shift of employees from one establishment to another. Data as yet unpublished indicate that on a straight employee basis the smaller establishments show a somewhat larger percentage of total employment than the figures above indicate.

unimportant in terms of assets. If we classify corporations having less than a million dollars as belonging to the small-sized group, we find that such corporations have only 17 per cent of the total assets of non-financial corporations. However, in numerical terms they make up 96 per cent of the total. Corporations having assets of 10 million dollars or more make up less than 1 per cent of the total numerically but have 63 per cent of all corporate assets. The medium-sized corporations—ranging from 1 to 10 millions—account for about 20 per cent of the total assets.

Without giving figures, it may be noted that the classifications by industrial groups show that corporations of small and medium size are relatively important in textiles and trade and that large corporations are dominant in tobacco, public utilities, mining and quarrying, and finance.[1]

As viewed from the standpoint of employment, small- and medium-sized companies are of substantial importance. The second part of the table on page 129 shows the number of workers employed in establishments of varying sizes, ranging from those employing less than 10 to those employing 10,000 and more. It will be seen that 52.5 per cent of all employees are found in establishments employing less than 300 individuals. Twelve and one-half per cent of all employees are found in companies which employ more than 10,000 persons.

II. CAPITAL POSITION OF CORPORATIONS, BY SIZE

The character of the capital-raising problems of corporations of varying size may best be revealed by an analysis of their relative financial position. Again we use the data furnished by the income tax returns. It is necessary to use 1936 data for the sub-classes since the detailed figures for 1937 are not yet available. The charts on pages 132-33 show the total liabilities and the amounts of the following items: notes and accounts payable; bonded debt and mortgages; other liabilities;[2] preferred stock; common stock; and surplus, or deficit. The corporations are divided into classes ranging from under $50,000 to over $50,000,000 of total liabilities.[3] The charts show separately all non-financial corporations; manufacturing companies; transportation and other public utilities; mining and quarrying companies; trade; and service corporations.

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[1] A complicating factor in the use of these statistics is the percentage of the output which is produced by corporations in the various fields. This varies from field to field. One estimate based on the records of the Bureau of Foreign and Domestic Commerce is that in mining all but 4 per cent is corporate; in manufacturing all but 8 per cent; in service only 30 per cent is corporate; and of all activity 60 or 65 per cent is corporate depending on whether governmental activity is included. See Edwin B. George, "How Big Is Big Business?" *Dun's Review*, March 1939, p. 22.

An examination of the charts leads to the following conclusions with respect to the various classes of corporations:

1. The smaller the corporation, the greater the dependence upon bank and trade credit.
2. The smaller the corporation, the less is the proportion of the capital represented by bonds, mortgages, and preferred stock; and, correspondingly, the greater is the proportion of equity capital.
3. Deficits are characteristic of the very small companies.

The soundness of capital position varies directly with the size of corporations. Scrutiny of the charts reveals a progressive change along the lines summarized above, as the size of corporations increases. This generalization applies both to corporations as a whole and to each of the subsidiary classes. It is interesting to note that none of these groups of corporations shows what might be regarded as an excessive long-term debt. The debt troubles of the smaller companies arise from the large proportion of trade and bank indebtedness. Their bond and mortgage capital is exceptionally low as compared with common stock.

The working capital situation shows a progressive improvement as the size of corporations increases. This is suggested in a rough way in the following diagrams and particularly by the deficits shown in the accounts of the smaller companies. The situation with respect to working capital is, however, more definitely and com-

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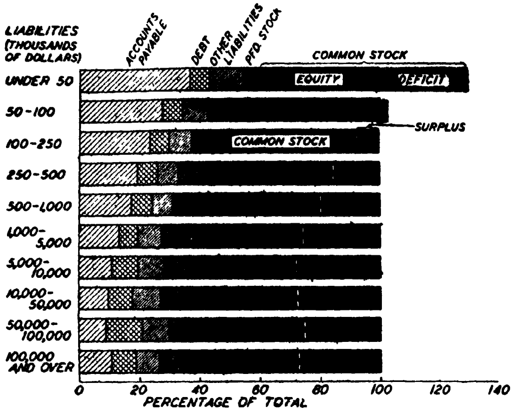
[2] This term includes the following: "deferred and suspense items; funds held in trust; borrowed securities; outstanding coupons and certificates; overdrafts; and all reserves except reserves for bad debts, depreciation, and depletion. Other liabilities of life insurance companies include the net value of outstanding policies and securities, and borrowed money. Other liabilities of banks include deposits (time, saving, demand, etc.) and bank notes in circulation," *Statistics of Income for 1936*, Pt. II, p. 27.

[3] In some cases, in order not to disclose the figures for individual companies, certain classes have been grouped.

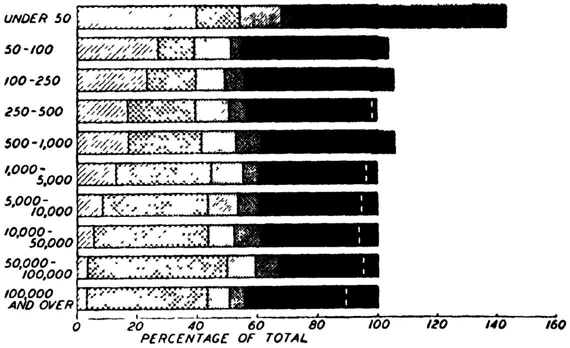
Percentage Composition of Corporate

(By size of corporation,

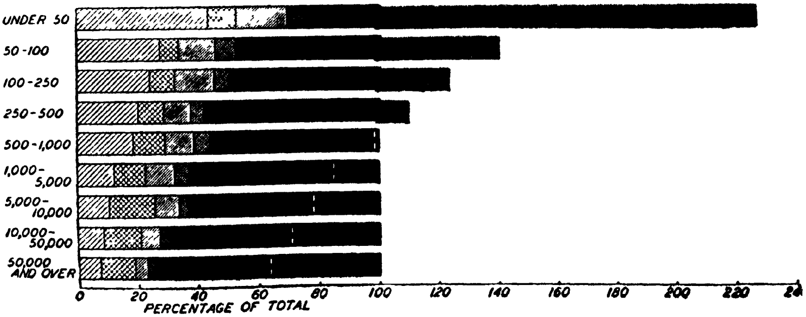
I. MANUFACTURING



II. TRANSPORTATION AND OTHER PUBLIC UTILITIES



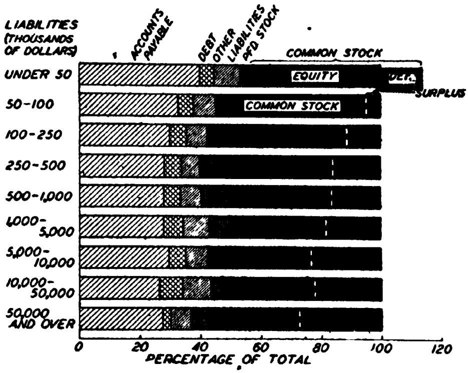
III. MINING AND QUARRYING



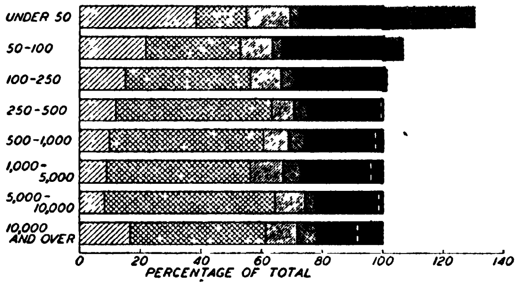
[a] For data, see App. C, pp. 370-73.

Liabilities, for Specified Groups, 1936[a]
in terms of total liabilities)

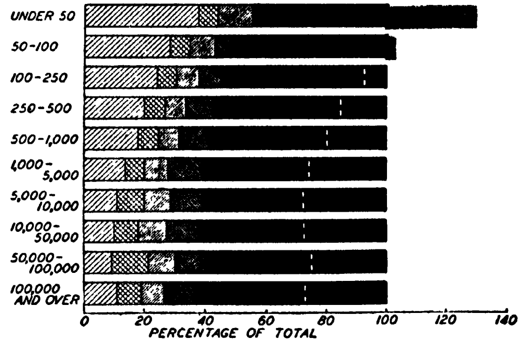
IV. TRADE



V. SERVICE[b]



VI. ALL NON-FINANCIAL



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[b] This classification includes hotels, incorporated professions, amusement companies, etc.

pletely shown by the accompanying table, which reveals the ratio of current assets to current liabilities for corporations of various sizes. The table is based on the balance sheets of all corporations, other than financial, which report for income tax purposes. The financial corporations are excluded because they are lending rather than borrowing agencies.

Working Capital Position, by Size of Corporation, 1936[a]
(In millions of dollars)

Asset Classes (In thousands of dollars)	Current Assets	Current Liabilities	Current Ratio
Under 50	1,919	1,353	1.4
50– 100	1,653	948	1.7
100– 250	3,049	1,613	1.9
250– 500	2,781	1,362	2.0
500– 1,000	3,029	1,458	2.1
1,000– 5,000	7,382	3,178	2.3
5,000– 10,000	3,208	1,294	2.5
10,000– 50,000	6,987	2,668	2.6
50,000–100,000	2,917	1,165	2.5
100,000 and over	9,055	3,726	2.4
Total	41,980	19,765	2.1

[a] U. S. Bureau of Internal Revenue, *Statistics of Income for 1936*, Pt. II.

There is a general—but by no means hard and fast—credit rule to the effect that current assets should be at least double current liabilities. If we apply this rough test to the data before us we find that the smaller corporations taken as groups do not meet the test of a sound credit position, and that even the medium-size and larger corporations show no great excess over the two-to-one ratio. It should be borne in mind that the ratios are averages for all corporations in the various groups, and that a low ratio for a group as a whole does not mean that some corporations within the group may not be in a favorable position. Similarly, some individual corporations in groups showing a very favorable ratio would presumably have an unfavorable ratio. Further discussion of the current ratio situation with respect to industrial corporations will be found on page 137.

III. CAPITAL REQUIREMENTS OF LARGE COMPANIES

As has already been noted, the argument has recently been advanced that large corporations which are in a position to obtain money in the capital market are in no need of additional funds. The analysis which we have just concluded, which shows the relatively favorable financial position of the larger as compared with the smaller corporations, may seem at first glance to support this view. However, those data are not conclusive, for two reasons: they cover *all* non-financial corporations, and thus do not reveal possible variation in the position of companies of differing types; and they include embarrassed concerns as well as those which are in a strong position. If we are to gauge the situation adequately, we must analyze the financial condition of a substantial number of prosperous companies.

The problem with which we are concerned is whether large corporations, generally speaking, have sufficient funds on hand to permit them to expand their operations materially without resort either to the short-term or the long-term money market. We must assume an expansion in the scale of their operations because expansion of output is an indispensable accompaniment of the process of restoring and increasing living standards. In recent years corporations generally have not operated at anywhere near capacity.

The process of expanding production must, therefore, be viewed in two stages. The first represents a more complete utilization of existing capacity—taking up the slack accompanying depressed conditions. This involves an increased utilization of working capital. Such capital may *conceivably* already be available in the form of idle balances; it may be secured from bank loans; or it may be procured from the flotation of securities. The second stage of expansion, involving the construction of new plant and equipment, may also *conceivably* be financed out of idle funds, on bank credit, or on funds obtained from security flotations. Only on the basis of a study of the balance sheets of corporations can we find the answer to the general problem thus posed.

Net working capital rather than accumulated surplus is the key to credit requirements. It is often assumed that the accumulated surplus is available for purposes of expansion. The fact is, however, that the surplus item merely shows the excess of a corporation's assets over its liabilities, including capital stock. It is reflected in general assets—that is, it may be in the form of plant and equipment or of inventories, as well as in the form of cash or securities. Only such portion as is in the form of cash or readily marketable securities constitutes a free fund available for further expansion.[4] Indeed not all of this is available, for the normal operation of a

WORKING CAPITAL OF 186 LARGE INDUSTRIAL CORPORATIONS[a]
(In millions of dollars)

Items	1926	1929	1930	1931	1932	1933	1934	1935	1936	1937
Cash	1,442.3	1,830.7	1,957.3	1,744.0	1,853.2	1,626.6	1,729.7	2,015.5	1,993.9	1,861.0
Marketable securities	1,077.3	1,317.3	1,187.7	1,383.4	1,156.4	1,235.2	1,070.3	889.6	805.3	720.9
Receivables (net)	2,072.2	2,340.2	2,036.9	1,687.1	1,427.7	1,405.2	1,354.1	1,595.1	1,852.1	1,900.7
Inventory (net)	4,319.6	5,041.8	4,650.6	3,979.1	3,420.6	3,781.5	4,071.4	4,261.0	4,696.3	5,449.1
Miscellaneous	116.4	87.2	118.8	105.5	50.5	31.9	53.6	58.4	46.0	45.5
Total current assets	9,027.8	10,617.2	9,951.3	8,899.1	7,908.4	8,080.4	8,279.1	8,819.6	9,393.6	9,977.2
Accounts payable	1,099.9	1,154.2	934.5	708.0	632.5	721.2	669.2	774.3	939.5	929.3
Notes payable	219.7	310.1	220.1	216.0	243.1	199.3	231.7	243.6	245.4	395.5
Miscellaneous	619.5	775.6	609.3	434.6	341.2	441.8	643.3	771.5	987.4	1,126.3
Total current liabilities	1,939.1	2,239.9	1,763.9	1,358.6	1,216.8	1,362.3	1,544.2	1,789.4	2,172.3	2,451.1
Net working capital	7,088.7	8,377.3	8,187.4	7,540.5	6,691.6	6,718.1	6,734.9	7,030.2	7,221.3	7,526.1
Current ratio	*4.7*	*4.7*	*5.6*	*6.6*	*6.5*	*5.9*	*5.4*	*4.9*	*4.3*	*4.1*

[a] This analysis has been prepared by Mr. Elmer O. Jolley of Northwestern University, and represents, with some modifications, an extension through 1937 of a study by Dr. Harry G. Guthmann of Northwestern University, published as "Industrial Working Capital during Business Recession," *Harvard Business Review*, Vol. XII (1934), pp. 472–77. For a detailed statement showing the companies covered, see App. C, pp. 378–87.

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[4] Securities held for purposes of control are of course not available.

business requires substantial holdings of cash or other very liquid assets.

The net working capital of a corporation is the excess of its current assets over its current liabilities. If there is a large excess and if the cash position is especially strong, the company may be in a position both to expand its current operations and to build new plant and equipment without resort either to the short-term or long-term credit market. If, on the other hand, the net working capital is small in amount or if the cash position is weak, borrowing is necessary even for purposes of expanding current output. It is for this reason that it is necessary to analyze the working capital situation if we are to ascertain whether and under what conditions it will be necessary for corporations to resort to the capital markets.

The working capital position of 186 large and successful industrial corporations for the years 1926 and 1929-37 is summarized in the table on page 136. The number of companies representing the various industries are as follows: railway equipment, 12; automobile parts, 11; automobile tires, 4; automobiles and trucks, 8; building materials and real estate, 9; chemicals, 12; coal, 3; containers, 3; electrical equipment, 2; food products, 26; household products, 5; leather and shoes, 4; machinery, 7; metals, 11; business office equipment, 5; oils, 21; retail trade, 14; iron and steel, 11; sugar, 5; theaters, 3; tobacco, 6; textiles, 4.

The working capital position in 1936-37 was slightly less favorable than it was in 1926 and 1929. This is revealed by the current ratio of quick assets to quick liabilities, which declined from 4.7 per cent in 1926 and 1929 to 4.3 in 1936 and 4.1 in 1937. This fact obviously gives no support to the view that the working capital position at the present time is *exceptionally* favorable. All that can be said is that it is reasonably satisfactory.

Further light on the working capital position of large corporations is obtained when they are analyzed by groups. The table on page 138 shows the variations in the current ratio in different industries. The data are from the same source and cover the same group of corporations included in the summary table on page 136. For purposes of comparison, we simply give the figures for the two years 1926 and 1937.

The first step in a period of expansion, as already indicated, is to increase the volume of current output. While such an expansion may be financed to some extent by the corporation itself if it has an abundance of cash, as a rule the point is soon reached where additional working capital funds are required. Normally these are obtained either by means of bank loans or in the form of trade credit. Reference to the table on page 136 indicates that in the expansion of 1935-37 cash and marketable securities declined and receivables and inventories expanded on the assets side; while on the liabilities side both accounts payable and notes payable in-

WORKING CAPITAL POSITION IN VARIOUS INDUSTRIES, 1926 AND 1937[a]
(In millions of dollars)

Industries	1926		1937	
	Net Working Capital	*Current Ratio*	Net Working Capital	*Current Ratio*
Automobile parts	95.7	*6.3*	91.9	*4.4*
Automobile tires	313.9	*5.6*	270.8	*3.9*
Automobiles and trucks	377.3	*2.9*	491.2	*3.4*
Building materials and real estate	153.5	*5.4*	155.4	*5.0*
Chemicals	358.5	*6.5*	461.2	*5.0*
Coal	39.6	*3.4*	17.1	*2.1*
Containers	73.4	*5.6*	119.9	*3.4*
Electrical equipment	331.0	*5.2*	229.0	*3.6*
Food products (meats, etc.)	442.1	*4.2*	400.3	*3.5*
Food products (packaged)	252.2	*4.6*	361.0	*4.8*
Household products	102.6	*6.4*	143.2	*6.0*
Leather and shoes	90.6	*5.2*	96.9	*7.1*
Machinery (agricultural)	222.9	*6.3*	337.8	*4.8*
Machinery (industrial)	57.9	*6.4*	97.6	*4.3*
Metals (copper)	164.4	*4.6*	206.4	*5.4*
Metals (miscellaneous)	189.1	*5.7*	176.4	*3.4*
Office and business equipment	102.1	*5.7*	93.1	*5.3*
Oils	1,748.8	*4.0*	1,516.6	*3.2*
Railway equipment	284.6	*5.0*	194.5	*5.2*
Retail trade	209.4	*4.8*	426.7	*5.3*
Retail trade (groceries)	99.8	*3.9*	229.4	*5.3*
Steel and iron	767.1	*4.9*	705.2	*4.2*
Sugar	95.3	*4.5*	88.6	*5.1*
Textiles	87.7	*5.5*	55.2	*8.6*
Theaters	31.3	*3.1*	67.1	*2.6*
Tobacco	397.9	*12.0*	493.6	*7.1*

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[a] Detailed data showing the various items for the years 1926 and 1929–37 inclusive are given in App. C, pp. 378, 387.

creased. The combined result of these changes, as already noted, was to reduce the current ratio. Thus it will be seen that even so moderate an expansion as that between 1935 and 1937 involved for these large industrial corporations a considerable resort to short-term borrowing, either from banks or the trade.

The second step in the expansion process involves the construction of additional plant and equipment. To some extent such expansion may be financed out of current earnings; and as was pointed out on pages 24-26 it has often been financed by bank loans. Characteristically, however, this type of expansion is carried out by means of funds derived from the flotation of securities.

A concrete illustration will serve to show how the current ratio would be affected by a substantial increase in the volume of business. Let us assume that the quick assets of a company at the end of 1938 stood at 4 million dollars and the current liabilities at 1 million—a ratio of 4 to 1. If the company were to borrow from the banks in the course of the next year or so 1 million dollars for purposes of working capital expansion, the total current assets would be increased from 4 to 5 millions and the current liabilities from 1 to 2 millions, which would reduce the current ratio from 4 to 1, to 2.5 to 1. If in the ensuing years another million were borrowed from the banks for purposes of *fixed capital* expansion, the current liabilities would be increased to 3 millions, while the current assets would remain at 5. This would reduce the current ratio to only 1.7 to 1.

The arithmetic of such operations is not appreciated by those who think indefinite expansion without resort to the capital markets is possible merely because the current cash position and the working capital position are favorable. The simple fact is that the apparently adequate financial resources appear adequate only because the volume of business is relatively small. A favorable ratio of quick assets to current liabilities is, in a period of expansion, quickly converted into a meager ratio.

Even so restricted a recovery movement as that of recent years was accompanied by a considerable increase in flotations for purposes of fixed capital expansion. This fact tends to be forgotten simply because the volume of such flotations was not comparable with that of the decade of the twenties. But neither was the recovery and expansion movement comparable to that of the twenties. As was shown in Chapter II, new corporate issues (exclusive of refunding) averaged during the three years 1936-38 about 1,100 million dollars annually. These flotations were in the main the issues of relatively large companies. The following are examples of such issues:

The Douglas Aircraft Company—over 4 million dollars in July 1936, "for working capital purposes"

Monsanto Chemical Company—5 million dollars in July 1937, "for working capital and plant expansion"

The Pacific Gas and Electric Company—15 million dollars in February 1938, "for working capital and extensions"

United States Steel Corporation—100 million dollars in June 1938, "for a modernization program"

The Standard Oil Company of New Jersey—50 million dollars in July 1938, for "capital expenditures, financing inventories and receivables, and other corporate purposes"

Celanese Corporation of America—10 million dollars in August 1938, "for development of changes designed to obtain economy in operation"

The serial term loans placed with banks in recent years have also been mainly those of large corporations; and the funds have been used for both working and fixed capital purposes as well as to liquidate trade credits and bank loans.[5] It may also be noted that the improvement in business in the autumn of 1939 was quickly followed by the development of tentative plans for extensive long-term financial operations by railroads, public utilities, and industrial corporations alike. Further discussion of the extent to which corporations may be dependent upon the capital markets for funds must be reserved for Chapter IX, where the capital requirements involved in achieving higher standards of living are discussed.

The conclusions which may be drawn from the foregoing analysis may be summarily stated as follows:

1. The financial strength of corporations in general increases directly with the size. This statement applies to the aggregate

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[5] For a discussion of term loans, see pp. 152-55.

figures for all corporations and also to each of the major groups of industry shown.

2. The larger corporations of the country have been in a favorable position with respect to available working capital; but they could not finance a great expansion without resort to the financial markets. This conclusion applies both to working capital for purposes of increasing the volume of output, and to fixed capital for the expansion of plant and equipment.

The analysis thus affords no support for the view which has been so often expressed in recent years that the large corporations have such superabundant financial resources that there will henceforth be no necessity for them to resort to the financial markets, and that in consequence the outlets for money savings in private capital enterprise in the future will be negligible. Even so moderate a business recovery as that of 1936 and 1937 brought forth a considerable volume of flotations by very large industrial enterprises.

The extent to which the larger industries of the country will engage in new capital flotations will of course depend upon the extent of business recovery and expansion in the years ahead. Light as to the magnitude of the potential requirements will be shed on this problem by the analysis in the ensuing chapter.

CHAPTER VIII

CAPITAL PROBLEMS OF MEDIUM- AND SMALL-SIZED COMPANIES

The analysis of the preceding chapter has shown that medium-sized and small corporations still comprise an important part of the business structure of the United States, especially when looked at from the point of view of employment. The data presented in section II of Chapter VII showed that the financial position of such companies was as a whole much less satisfactory than that of the larger companies. As we move down in the scale from 1 million dollars of total assets we find a strong tendency for deficits to appear in the surplus account and for the working capital position to be weak, with an accompanying dependence upon bank and trade credit.

These generalizations are derived from aggregate figures for groups of corporations, and should not be interpreted as applying to all individual companies. The fact is, however, that among the rank and file of the smaller companies there is always a substantial proportion which, to use a colloquial expression, are just hanging on. At the same time of course, there is a considerable group which is in a thriving condition and which as a result of growth will in due course move up to larger size classes.

The raising of capital by the smaller business enterprises has always presented special problems. As a result of the depression and trends during recent years, public attention has, however, come to be focused upon this problem as never before, and various methods of alleviating the situation have been under consideration. This chapter will consider the capital problems of medium- and small-sized companies at the present time.

The analysis will be divided into two main parts. We shall first consider briefly the situation with respect to short-term credit accommodations. Second, we shall study the various methods by which long-term capital may be obtained and the special problems existing at the present time.

I. THE SITUATION WITH RESPECT TO SHORT-TERM CREDITS

The data presented in the preceding chapter indicate that the medium-sized and smaller corporations are dependent in no small degree upon trade and bank credit—the former representing purchases on a time basis, and the latter short-term bank loans with which to take advantage of cash discounts. In the comprehensive data furnished by the *Statistics of Income* there is, unfortunately, no breakdown of the general item "bank and trade credit" and hence it is impossible to show, statistically, the extent to which high-cost trade credit is a factor in the present credit situation. However, case studies which we have examined, together with collateral information, indicate that as a rule the smaller the company the greater the reliance upon trade credit. One need, therefore, is to replace, so far as possible, high-cost trade credit with short-term bank loans.

The question is whether commercial banking policy is so conservative at this time as to make progress in this direction difficult or impossible. This is a problem which has been under consideration more or less continuously since 1933. In 1935 an investigation was made under the auspices of the Treasury Department on the availability of bank credit in the Chicago Federal Reserve district.[1] This study indicated that while there was evidence of a considerable unsatisfied demand for credit, such demands were in the main for long-term working capital (intermediate credit) rather than for one-turnover commercial loans. It was pointed out, moreover, that this situation was in large part due to the very strict supervision of bank examiners who were constantly exerting pressure for the elimination of "slow" working capital loans, even though such loans might be sound in the long run. In other words, the difficulties of the time were increased by the emphasis that was being placed upon quick liquidity.[2]

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[1] Charles O. Hardy and Jacob Viner, *Report on the Availability of Bank Credit in the Seventh Federal Reserve District.*

[2] A study made in 1939 is less intensive, but covers the whole of the United States. The study is based on a questionnaire sent to business firms to which 1,755 replies were received. The number refused accommodation was 89, or 5.1 per cent of the cases. The conclusions are, in general, similar to those of the earlier study. The refused loans were mostly (87 per cent) for working capital. However, in over one-seventh of the cases the reason given for refusal was that the funds were

Commercial bank loans are now extended on as liberal a basis as is justified. There is now less emphasis upon quick liquidity, and the restrictions on loans, particularly with respect to the slow but sound class, have been alleviated. As we shall see in a later section, approval has also been given to the making of 5- and 10-year term loans by commercial banks.

In recent years the superabundance of bank reserves and the restricted demands for banking accommodations from the larger corporations have exerted a great pressure upon the commercial banks to find in every possible way additional earning assets. The picture of the inhuman banker behind his desk surveying timid customers with his undetectable glass eye is being replaced by a smilingly courteous individual ringing industrial doorbells and, with hat in hand, obsequiously, but none too hopefully, inquiring about the possibility of establishing a credit.

It should be borne in mind, however, that in the interests of the protection of depositors, bankers cannot abandon sound criteria of credit judgment. There can be little doubt that present loan policies are as liberal as it is possible for them to be under prevailing conditions. The low ratio of quick assets to current liabilities among the smaller companies, as revealed by the table on page 134, clearly indicate why such companies cannot hope to obtain from the banks all the credit they might desire.

The obvious need of the medium- and small-sized companies is for more capital of their own. The primary problem, therefore, is their ability to raise long-term capital through the issue of securities.

II. THE LONG-TERM CAPITAL PROBLEM

The long-term capital used by corporations is raised by the following methods: direct investments of individuals; the flotation of securities through investment banking institutions; loans from commercial banks; and loans from Federal Reserve banks and other federal agencies. We shall consider each of these in turn.

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required for a longer period than the banks were willing to consider. The author concludes that the need was for intermediate credit and equity capital. Of those which were refused 81.1 per cent had a capital of $500,000 or less. Lewis H. Kimmel, *The Availability of Bank Credit, 1933-1938*, National Industrial Conference Board.

A. Direct Investments of Individuals

The data presented in the charts on pages 132-33 indicate that all corporations, and particularly the smaller ones, depend heavily upon investments in the form of stock subscriptions. A substantial part of such capital is ordinarily raised from interested individuals who constitute what is in effect a "close" corporation. Such companies have commonly arisen out of partnerships. Some of them are essentially family enterprises, and in most cases they rely primarily upon a local group of subscribers. This is obviously an ideal method of raising capital since it eliminates the costs involved in public flotations in the general investment market.

There has been a strong tendency since the war period to give preference to investments in securities which are traded in on the organized exchanges. The attraction is two-fold. If investments are made in seasoned securities, the risk is distinctly smaller than is the case with direct investments in new ventures. The more speculative issues may seem to offer excellent chances for profit and at the same time be readily marketable. Similarly, the desire to ride with the general market has also played a part in stimulating investment on the organized exchanges rather than directly in local companies.

The savings of small investors are typically not available for investment in common stocks. This is because such investments are usually made through savings banks and insurance companies, the investments of which are confined by law primarily to bonds and mortgages—in the interest of what is believed to be greater security.

In recent years an additional factor has served to restrict equity financing, namely, the taxation system. The combination of very high surtax rates and the provisions with respect to the taxation of gains without corresponding credit for losses, together with the existence of a large volume of tax-exempt bonds, has tended to dry up what formerly constituted a large reservoir of funds for equity financing.[3] The unstable economic and political situation, both domestic and international, has been a further deterrent factor.

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[3] This aspect of the problem is fully discussed in Chap. XIII. See especially pp. 294-304.

B. Flotations through Investment Banking Houses

The needs of corporations of small and medium size are served by a large number of small investment houses and brokerage concerns. Investment banks of the great metropolitan centers usually do not handle small flotations. Such houses have large and extensive organizations, especially designed to handle large issues, and accordingly they have little interest in the problems of small companies.

These smaller investment houses are widely distributed geographically. Many of them are located in New York City, but the majority are in other cities, large and small, located in all parts of the country. A special study which has been made of issues under $500,000 covering the years 1925 to 1936 shows that less than 20 per cent originated in New York City.[4] The study was limited to *business* corporations and did not include investment trust issues. A table presented in Appendix C on page 388 shows that the 1,625 issues under $500,000 which were floated in the years under consideration originated in 39 different states and 118 different cities.

Chicago was almost as important as New York City as gauged from the standpoint of the number of issues under $500,000. Detroit, Los Angeles, San Francisco, Boston, and Minneapolis constitute a second group of relatively important financial centers. Baltimore, Philadelphia, Cleveland, Pittsburgh, Portland (Oregon), Indianapolis, and Kansas City also played a significant role in the flotation of small security issues. It is of interest to note that a considerable number of cities show only one or two flotations over the entire 12-year perid. However, the fact that they have on occasion floated such issues indicates the possibility, under favorable conditions, of raising funds in relatively small local communities.

The depression period witnessed extensive changes among investment banking houses. Some of the larger houses shifted to commercial banking operations to meet the requirements of new financial legislation. Many smaller houses suspended operations because of financial difficulties. Since 1935, however, many new investment concerns have been organized. Some of them are in effect reorganizations, on a smaller basis, of old houses; but the bulk of them are new concerns organized by individuals who were connected with institutions which had suspended operations. Most of the latter have meager financial resources.

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[4] The predominant position of New York City in the investment market lies not so much in the number of issues floated as in the capital value of all issues—large and small. For a table showing the importance of New York City in the security flotation business as a whole 1925-36, see App. C, p. 389.

It would appear from this analysis that the number and geographic distribution of investment houses is reasonably satisfactory. While the amount of investment and underwriting capital is unknown, there is reason to believe that it would readily increase in proportion as the demand for such capital expands.[5] The vital question, however, is not the number of houses which engage in the flotation of the issues of small and medium-sized companies or the amount of capital available, but the costs of such flotations to the borrowing corporations.

The percentage cost of floating securities increases rapidly as the size of the issue decreases. This is true of all classes of securities —common stocks, preferred stocks, and bonds, notes, and debentures. The expense of floating securities increases sharply when the amounts are less than a million dollars. The table on page 148 shows the costs, expressed as a percentage of the issue price, for different sizes of security issues, including common stocks, preferred stocks, and bonds, notes, and debentures. The table covers all issues registered with the Securities and Exchange Commission, for which comparable data were available, between January 1, 1936 and June 30, 1938. The explanation of the decreasing percentage cost as the size of the issue increases is to be found in the fact that most of the expenses have to be incurred irrespective of the size of the offering.

The costs of floating securities are much higher for common stocks than for other issues. It will be seen from the table that in the case of common stocks, for issues under $250,000, the costs, including commissions, discounts, and other expenses, runs to nearly 23 per cent of the amount of the issue. This means that for every $100 of capital stock issued the corporation receives about $77.

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[5] See discussion, pp. 225-26.

For even the largest class of stock issues during these years—from 1 to 5 million dollars—the costs were over 15 per cent. The cost of issuing preferred stocks runs appreciably lower for the various classes than is the case with common stocks. It is significant to note the very great reduction in the percentage cost as the amount of the issue rises to a million dollars and upwards. For issues in excess of 10 million dollars the costs appear very moderate. Bond, note, and debenture issues as a group show considerably lower flotation expenses than do preferred stocks.

Cost of Security Flotations by Type and Size of Issue[a]

Type and Size of Issue (In thousands of dollars)	Number of Issues	Percentage Cost of Issues
Common stock		
Under 250	73	22.8
250–499	58	21.2
500–749	40	19.5
750–999	27	19.1
1,000–4,999	43	15.4
All issues	241	17.9
Preferred stock		
Under 250	17	16.1
250–499	29	17.3
500–749	12	14.3
750–999	8	16.1
1,000–4,999	31	8.6
5,000–9,999	7	4.9
10,000–24,999	5	3.4
25,000 or more	2	3.0
All issues	111	5.7
Bonds, notes, and debentures		
Under 250	16	8.7
250–499	11	8.5
500–749	8	8.7
750–999	8	5.7
1,000–4,999	55	4.7
5,000–9,999	14	3.4
10,000–24,999	39	3.1
25,000 or more	41	2.5
All issues	192	2.8

[a] Based on a table supplied by the Securities and Exchange Commission. The expenses are expressed as percentages of the gross amount of securities proposed to be offered for cash sale for the account of registrants.

The commissions and discounts account for the bulk of the costs.

For example, in the case of common stock issues of between 1 and 5 million dollars, commissions and discounts amounted to 14.3 per cent and other expenses to 1.1 per cent. In the case of issues under $250,000, commission and discount costs amounted to 20.5 per cent and other expenses to 2.3 per cent. The breakdown of other expenses for common stocks, preferred stocks, and bonds, respectively (in percentages), is as follows:[6]

	Common Stocks	Preferred Stocks	Bonds
Listing fees	.053	.028	.011
Registration fees	.011	.011	.011
Revenue stamps	.049	.095	.110
State qualification fees	.051	.026	.022
Trustee fees	.037	.028	.093
Printing and engraving	.168	.134	.114
Legal fees and expenses	.591	.232	.149
Accounting fees and expenses	.275	.111	.063
Engineering fees and expenses	.032	.004	.015
Other and miscellaneous expenses	.232	.117	.076
Total	1.499	.786	.664

The explanation of the higher flotation charges in the case of common and preferred stocks is to be found in the greater risks involved. It is very much easier to sell bonds, which for legal and other reasons are purchased in large volume by investment institutions and trust funds. Stocks must usually be sold to a large number of individual investors who characteristically purchase in comparatively small amounts. This adds to the direct costs of selling and at the same time increases the risk that the entire issue may not be disposed of within the time period agreed upon. Hence the commissions to the bankers have to be larger than in the case of bonds. Moreover, in view of the greater risks assumed by the investor in equity securities, such securities are usually brought out at a substantially larger discount than are bonds.

The expenses of floating securities vary considerably from one industry to another. In the extractive industries, for example, the cost of floating common stock was 25.9 per cent; in transportation and communication companies, 19.1 per cent; in manufacturing industries, 16.4 per cent; in merchandising, 14.2 per cent; in financial companies (excluding investment trusts), 12.9 per cent; and in public utilities, only 5.4 per cent. A similar range is shown in connection with preferred stocks and bonds.[7] The explanation of these differences is to be found in part in the greater risks involved in certain types of industries and in part in the comparative size of the various issues.

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[6] From table supplied by the Securities and Exchange Commission.

The high costs of floating small common stock issues are not necessarily prohibitive. This is clearly indicated by the fact that out of 241 common stock issues registered with the Securities and Exchange Commission, as shown in the table on page 148, as many as 198 were issues of less than $1,000,000, while 73 were less than $250,000. An analysis of all flotations in the Pacific Coast area from January 1930 to September 1938 shows that out of 180 issues there were 64 of less than 1 million dollars and 45 of less than $500,000. Of the issues less than $500,000 in amount, 15 were bonds, notes, or debentures, 7 preferred stocks, and 23 common stocks.[8]

The reason why such charges are not prohibitive is that they do not represent direct costs which must be met out of a given year's income. When a corporation issues a $100 share of stock and receives $80, it merely agrees to pay dividends on the $100 at such time as the earnings are regarded as adequate. If no dividends are paid for the first three years, the costs are automatically postponed for a 3-year period. In consequence, the annual cost would not exceed that on a bond originally marketed at much less cost but requiring interest payments from the beginning. To be sure, stock subscribers wish to receive dividends at the earliest possible date, and hence pressure is exerted on the corporation to pay dividends as soon as earnings permit.

The real handicap to the small corporation lies in the very high charges which it pays in comparison with larger companies. With issues running beyond 10 million dollars, the cost of the larger corporations is but a fraction of that of the smaller companies. The higher capital charges of the small companies of course places them at a distinct disadvantage as compared with larger competitors.

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[7] The same.

[8] For the complete list showing amounts, purposes for which these flotations were made, and other details, see App. C, pp. 390-95.

Local investment bankers seem to offer the best possibility for bringing out small issues at minimum cost. Much of the credit information needed may be common knowledge or readily obtainable locally since the company and its officers are well known in their own community. It may also be possible to market the issues among local investors who are acquainted with the reputation of the company in question. If the local market is inadequate, an attractive issue is often distributed in part through investment bankers in other cities with whom working relations are maintained. It is for such reasons as these that the maintenance of small investment banking houses throughout the country is essential. Neither the large nor the smaller investment houses of the great metropolitan centers can be counted upon to analyze such local enterprises and provide the needed capital.

In England a method has been developed in recent years which has very greatly reduced the cost of small capital share issues. There are two aspects to the plan. The first is to promote a combination of two or more small companies in order to make possible a flotation of somewhat larger size than would otherwise be the case. The second is the elimination of the costs involved in public offerings by placing such issues directly with savings banks, and insurance companies or individuals of large means. As a result of very thorough investigation of the potentialities of the enterprise, the investment house is usually able to obtain purchasers before the commitment is actually made. Thus the risks—and hence the necessary spread—is very greatly reduced. In fact, the cost for flotations in the range of $500,000 to $1,000,000 has been brought down to around 5 or 6 per cent—or to a level comparable with that of large issues which are publicly floated.[9]

This method, however, would not lend itself readily to American conditions. In the first place, it requires long-established banking relationships which are not so common here as in England. In the second place, insurance companies and savings banks are not permitted to make investments in common stocks. Its chief possibility would lie in connection with large individual investors and perhaps to some extent with certain types of institutional investors.

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[9] This statement is based upon personal scrutiny of the records of one of the most important houses.

C. Capital Loans from Commercial Banks

As was pointed out in Chapter I, the commercial banking system has always been an important source of intermediate and long-term, as well as short-term, business credit. Although the commercial banks nominally made loans in the form of short-term loans, by means of extensions and renewals, as well as by demand loans of indefinite duration, they furnished a substantial part of the capital requirements of small and developing enterprises. Loans thus received were expected to be gradually liquidated as the earnings of the business made it possible. The stricter supervision of loans by the banking authorities following the depression of 1933, alluded to above, served, however, to restrict such credit extensions. But in the last few years a new method has been evolved for getting substantially the same result, namely, the term loan.

The term loan differs from the short-term loan indefinitely extended in that the former runs for a definite period of years and calls for gradual liquidation through serial repayments. The usual duration is five years, although some have been made for as long as ten years. It is obvious that this systematic plan has definite advantages over the former loose and irregular procedure.

The credit investigation involved for such loans is similar to that employed in connection with short-term commercial loans. With the longer loan, however, earning power is considered as well as the company's position with respect to quick assets and current liabilities. The loan contract lays down various restrictions designed to safeguard the position of the lender.[10]

The term loan procured from commercial banks is analogous to serial notes and debenture issues. It is unlike a stock certificate in that it is an interest-bearing obligation. It is often like a debenture in that it is based on the general credit of the corporation rather than a pledge of property, and it is like the serial note in that it calls for a schedule of periodic payments. In a good many cases, however, mortgage security is required.

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[10] An illustration of an actual term-loan contract setting forth these protective provisions will be found in App. C, pp. 396-97.

The term loan is used in connection with both small- and large-scale borrowing operations. The Board of Governors of the Federal Reserve System made an investigation of such loans as of April 19, 1939.[11] Information was obtained from about 400 banks whose combined loans of all types represented approximately 70 per cent of the loans of all banks. The classification of the term loans was as follows:

Size	Number of Loans	Aggregate Amount
Under $100,000	22,900	$170,000,000
$100,000-$1,000,000	1,700	460,000,000
Over $1,000,000	300	790,000,000
Total	24,900	$1,420,000,000

It will be seen that the small loans were numerically very important. If the second group be regarded as falling primarily within the medium-sized category, only about 57 per cent of the total amount is to be classified as involving large-scale borrowing operations. It is interesting to note in this connection that exactly 50 per cent of the loans included in this total were made by New York City banks.

From an investigation which we have made in three cities—Detroit, Cleveland, and Cincinnati—the following illustrations may be cited as examples of medium and small-scale loans. A printing company borrowed $72,000 for three years at 5 per cent—payable in monthly installments of $2,000. A metal-working concern procured a loan of $750,000 for five years payable in semi-annual installments of $75,000. A lithographing company obtained a term loan of $200,000 for five years at 4 per cent, payable in semi-annual installments. A drygoods company borrowed $180,000 for three years—at varying rates for the different maturities.

Term loans are made for a wide variety of purposes. They include the provision of additional general working capital; the purchase of raw materials; the financing of inventory expansion; the purchase of machinery and equipment; and the liquidation of trade credits and bank loans.

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[11] *Federal Reserve Bulletin,* July 1939, pp. 560-62.

The term loan is both cheaper and more flexible than ordinary security issues. It is cheaper simply because it requires no public registration or marketing through investment banking channels. In fact, the cost represents little more than straight interest—with some allowance for the extra risks involved by virtue of the duration of the loan. Two methods are employed with respect to the rates. Under one method the early maturities bear the current short-term commercial rate, with an ascending scale for later maturities. Under the alternative plan the rate is the same for all maturities, and naturally higher than current short-term rates.

Such loans have advantages over bond issues in two ways. In the first place, complete liquidation may be made on any payment date. Second, the gradual liquidation that is required lessens the danger of inability to meet large principal obligations which happen to be due at an unfavorable time. On the other side of the picture, however, it is obvious that the bank is in a position to exercise a more continuing supervision over the business than in the case with bond holders. While continuous advice from the banker may at times be irksome, it is likely to be helpful from the standpoint of maintaining sound credit conditions.

The extension of commercial bank credit for intermediate and fixed capital purposes has a legitimate place in banking operations. This development has, however, naturally given risen to some controversy. Those who adhere to the old conception of commercial banking as being properly related only to the financing of the production and distribution of goods look upon it as a dangerous innovation which threatens to undermine the safety of the commercial banking system. On the other hand, those who recognize that the commercial banks have always made what are in effect long-term loans and have long been heavy holders of securities, and who believe that liquidity is maintained chiefly through the shifting of assets and the procuring of credit in case of need from the Federal Reserve banks, look upon this development without misgivings. Indeed, they regard such loans as distinctly helpful in diversifying their portfolios and they regard the serial maturities, which are paid from earnings, as a more reliable flow of income than short-term loans, which are nominally paid in full on a given date but which frequently must be renewed. Certainly the risks involved are less than was the case under the more informal methods of long-term credit extension previously employed by the banks.

The banking authorities have come to recognize that such loans have a legitimate place in commercial bank credit extension. In 1938, as a result of agreements reached among the Comptroller of the Currency, the Federal Deposit Insurance Corporation, and the Board of Governors of the Federal Reserve System, regulations were issued pertaining to eligible investments of member banks, permitting the purchase of such loans having a maturity as long as ten years with no repayment of principal during the first year and only 75 per cent during the 10-year period.

There are some observers who believe that term loans are merely a temporary result of the abundance of bank funds and low interest rates, and that they will largely disappear if these conditions change. However, in view of the fact that this method is a convenient form in which to extend intermediate term credit to industry for which no provision was made in the past, it is our view that such loans are likely to occupy a significant permanent place in the banking system, especially outside the large financial centers.

D. Federal Reserve Loans to Industry

An act of June 19, 1934[12] provided that the Federal Reserve banks might make direct loans to industrial or commercial businesses for periods up to five years. This grant of power to make direct intermediate term loans to industry marks a departure from the traditions of the Reserve System in two ways: first, the System was supposed to make only short-term commercial loans; and, second, the lending activities of the System were supposed to be carried on only by the member banks—Federal Reserve banks merely being sources of bank credit.

The conditions laid down for Federal Reserve bank loans are as follows:

The circumstances must be exceptional.

The business must be an established one and be unable to get the accommodation on a reasonable basis from the usual sources.

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[12] 73 Cong. 2 sess., 48 Stat. L. 1105.

The loan must be for the provision of working capital.
The maturity must not be over five years.

The act also provides that a Federal Reserve bank may discount or purchase from any financing institution in its district loans for working capital with maturities not over five years, or make loans to any financial institution on such paper, or make commitments to discount, purchase, or grant loans. The financing institution must bear 20 per cent of the loss on the loan.

An Industrial Advisory Committee of three to five members in each district is appointed by the Federal Reserve bank subject to the approval of the Board of Governors of the Federal Reserve System. This committee makes recommendations about each application.

These loans have been made for a wide variety of purposes. The purposes for which one Federal Reserve bank has made such loans are indicated in the following table.[13] The total volume of loans by all Federal Reserve banks since 1934 is shown in the table on page 159.

Purpose	Amount	Per Cent
For labor and materials and to carry receivables, inventories, etc.	$27,013,638.52	73.7
Payment of bank debt	6,780,686.80	18.5
Payment of trade debt	1,784,353.68	4.9
Payment of taxes	379,500.00	1.0
For plant improvements including purchase of machinery and equipment	342,094.00	0.9
For payment of mortgages and debentures	186,850.00	0.5
For payment of miscellaneous debts	175,300.00	0.5
All loans	$36,662,423.00	100.0

It will be seen that such loans have been made for purposes other than for working capital, which accounts for 73.7 per cent of the total. The payment of bank and trade debts may properly be interpreted as the equivalent of an improvement in working capital position.

The reasons why industrial enterprises have sought loans direct from this Reserve bank are, of course, not revealed by the foregoing data, which merely show for what purposes the loans were used. However, an analysis of the applications presented to the Industrial Advisory Committee of that bank shows that these borrowers were typically short of working capital. An illustration of the process of granting a loan, which shows the character of the data and reveals the condition of the borrower, is given in Appendix C, pages 398-401.

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[13] Data furnished directly by the bank.

The Federal Reserve loans have also been made to a wide range of industries. A summary of loan operations for all Federal Reserve banks indicates that practically every type of industry is represented among the borrowers, including manufacturing enterprises, wholesale and retail companies, and an extensive miscellaneous group covering such varied businesses as mines and quarries; oil and gas production; printing, publishing, and allied trades; shipbuilding and repairing; transportation; construction; hotels, apartments, and restaurants; and laundries, cleaners, and dyers.

The need for credit was in part attributable to the depression and in part to bad management. One concern had big losses as the result of installment selling of equipment to irresponsible concerns. In certain cases working capital was used to purchase new equipment, to make repairs, or to pay off a mortgage; and then later the business suffered for lack of working capital. Notes and accounts receivable were often pledged with finance companies at high rates. In one case there was a loss of sales because of failure to maintain the quality of the product. Technical developments and changes in marketing methods were also contributing factors. One concern showed a big inventory of horseshoes. Another was suffering from Japanese competition. A paper company suffering from Canadian competition in newsprint was turning to other lines of paper manufacture. A common source of difficulty was the attempt to introduce a new product without adequate capital.

E. Industrial Loans by the Reconstruction Finance Corporation

The act of June 19, 1934[14] authorized the Reconstruction Finance Corporation to make loans to industrial or commercial businesses established before January 1, 1934, for the "purpose of maintaining and increasing the employment of labor." It will be noted that the authorization to the RFC was much broader than to the Federal Reserve banks, the loans of which were supposed to be restricted largely to working capital purposes.

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[14] 73 Cong. 2 sess., 48 Stat. L. 1108.

To be eligible for RFC loans, the borrowers must be unable to obtain credit at regular rates from the ordinary sources. The loans must be adequately secured and must mature in less than five years. This limitation was later extended to ten years.[15]

The loans of the RFC are distinctly what may be called "intermediate" credit, most of them running for from three to five years. In most cases they are payable in installments. The security is often a mortgage on the real property and a chattel mortgage on the inventory of the business. Monthly repayments are presumed to be made out of earnings. To the extent that this proves to be possible, it is apparent that the industries are not obtaining permanent capital from this source; they are merely afforded a chance to build up capital from earnings.

INDUSTRIAL LOANS BY THE RECONSTRUCTION FINANCE CORPORATION,
AS OF APRIL 30, 1938[a]

Purpose of Loan	Amount Authorized	*Amount as Percentage of Total*
"Working capital"	$ 32,755,000.84	*18.6*
Labor	4,483,107.87	*2.5*
Materials	3,488,003.59	*2.0*
Labor and materials (where not separated)	52,415,652.91	*29.7*
Improvements and repairs	5,931,122.18	*3.4*
Construction	8,162,018.15	*4.6*
Machinery and equipment	9,322,170.38	*5.3*
Inventory and supplies	2,484,615.93	*1.4*
Taxes	9,992,094.59	*5.7*
Trade debts	12,490,963.59	*7.1*
Bank loans	10,025,228.60	*5.7*
Mortgages	9,961,960.26	*5.6*
Bonds	6,103,236.67	*3.4*
Miscellaneous	8,873,953.43	*5.0*
Grand total	$176,489,128.99	*100.0*

[a] Data furnished directly by the RFC.

The purposes for which the RFC has extended credits to industry are shown in the accompanying table.

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[15] 74 Cong. 1 sess., 49 Stat. L. 4-5.

If we group with the "working capital" category labor and materials and inventories and supplies—items which are ordinarily regarded as working capital—we find that about 54 per cent of the total has been extended for working capital purposes. Improvements and repairs, construction, and machinery and equipment account for 13.3 per cent, whereas taxes and debts of various kinds comprise 27.5 per cent of the total.

The RFC loans have been more extensive than the Reserve bank loans. The amount outstanding for each agency at the end of each year from 1934 through 1939 is shown below. It will be seen that

End of Year	Industrial Advances of Federal Reserve Banks[16]	RFC Loans to Industrial and Commercial Business[16]
1934	$13,589,000	$ 6,626,000
1935	32,493,000	40,055,000
1936	25,526,000	63,592,000
1937	20,216,000	74,794,000
1938	17,345,000	107,747,000
1939	13,683,000	130,625,000

the Federal Reserve bank advances have decreased since 1935, while the Reconstruction Finance Corporation loans have shown a steady expansion.

The loans made by the Reconstructive Finance Corporation and the Federal Reserve banks constitute a negligible percentage of total credit extensions. On December 31, 1938, total bank loans outstanding in the United States amounted to 21,354 million dollars. The combined loans of the Federal Reserve banks and the Reconstruction Finance Corporation amounted to only 0.58 per cent of the loans made by the banks of the country.

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On the basis of the foregoing analysis, we reach the following conclusions:

1. Medium- and small-scale business enterprises constitute a very important segment of American economic life, particularly from the point of view of employment.

2. The principal source of financial weakness of small-scale business enterprises is a shortage of working capital. It is evident that, typically speaking, they have not been able to build up capital

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[16] *Federal Reserve Bulletin*, February 1940, pp. 127, 143.

out of undistributed earnings. The primary need, therefore, is for an expansion of equity capital through the sale of stock.

3. The methods of equity financing are only two in number. The first is the direct sale of shares to interested individuals; and the second is the public offering of stock through investment banking institutions. The obtaining of direct subscriptions is becoming increasingly difficult because of the handicaps imposed by our system of taxation and because of the preoccupation of the public with speculation in stocks listed on the exchanges. Nevertheless, with appropriate reforms of the taxation system (see "Recommendations" in Chap. XIII), and with a return to more stable political conditions, we may reasonably expect a material increase in the volume of so-called "venture" capital.

The public flotation of small issues must be undertaken chiefly by local investment banking concerns. Many issues of medium and small size are in fact handled by such houses, which is evidence that the cost, when spread over a period of years, is not actually prohibitive. The high costs nevertheless impose a competitive disadvantage upon the smaller companies. In numerous cases, moreover, they doubtless discourage flotations.

4. Loans to small-scale business enterprises by banks or government agencies do not reach to the heart of the problem. Such interest-bearing credit advances may in some cases tide a company over a difficult period; but in other cases they may merely increase the difficulties and hasten insolvency. Loans, therefore, have a somewhat limited role to play in connection with medium- and small-sized business enterprises, and much wisdom is required in the extension of such credit.

5. The existing machinery for making industrial loans is reasonably adequate. Such credit is now extended in the form of term loans by the commercial banks, by the Federal Reserve banks, and by the Reconstruction Finance Corporation. Owing to the extensive development of commercial bank *term loans* it would seem that direct industrial advances by the Federal Reserve might well be discontinued. The Reconstruction Finance Corporation, which has broader lending powers, is adequate to take care of emergency cases beyond the purview of the commercial banks.

CHAPTER IX

IS FURTHER PRIVATE CAPITAL EXPANSION POSSIBLE?

The profound and long-continued economic maladjustments of recent years have been accompanied by the emergence of the idea that the United States has now reached the stage of "economic maturity," and that our current difficulties are rooted in this fundamental fact. It is contended, accordingly, that further opportunities for industrial expansion under the system of private enterprise are severely restricted, and that in consequence we must look to the government for the enterprise with which to provide for the needs of the people.

A number of factors and considerations appear to be responsible for this view, among which the following may be mentioned: the disappearance of the agricultural frontier; the extensive appropriation of other natural resources; the declining rate of population growth, forecasting a stationary population in the not distant future; the apparent completion of the building of great industries; and the extraordinary achievements in science, invention, and technology, which have greatly increased productivity—and, in the view of some, already ushered in the age of plenty.

This point of view is perhaps a natural outgrowth of the prevailing character of American economic development over the course of the last century. We possessed vast unsettled areas and unexploited resources; we had a rapidly expanding population, resulting both from the birth rate and immigration; and we built a continuous series of new industries—railroads, public utilities, and manufacturing enterprises in ever new fields. In the light of this history, and of the recent period of stagnation, it is easy to understand how it might appear on first thought that our future, so to speak, lies behind us.

I. THE CONCEPTION OF ECONOMIC MATURITY

The meaning of the term "economic maturity" has not been very precisely stated. A few quotations from recent literature will, however, serve to indicate the nature of the problem and the significance attached to the conception. In opening the hearings before the Temporary National Economic Committee, Professor Alvin H. Hansen of Harvard University made the following statement, which was regarded as a keynote in the inquiry. It will be observed that Hansen regards the phenomenon as characteristic of the entire western world.

> . . . We are caught in the midst of powerful forces in the evolution of our economy which we but dimly understand. Something has gone wrong with the forces making for expansion. . . . The economic order of the western world is undergoing in this generation . . . a structural change no less basic and profound in character than the industrial revolution beginning 150 years ago and extending deep into the nineteenth century. That revolution transformed the western world from a primitive, rural economy into a highly industrialized machine economy. In this generation we are passing over a divide which separates the great era of the growth and expansion of the nineteenth century from an era which we cannot as yet characterize with clarity and precision. One overwhelmingly important fact, however, characterized the century which preceded the World War. It was a unique epoch. It was a century of rapid expansion into new territory and it was a century of prodigious growth of population. Population poured into America, into the great West into Brazil, the Argentine, Canada, Australia, and flowed back from the agricultural communities into giant urban centers, which grew and fed on this expansion. This one central fact of growth and expansion dominated the whole of economic life. . . .
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> . . . It is my growing conviction that the combined effect of the declining population growth, together with the failure of any really important innovations of a magnitude sufficient to absorb large capital outlays, weigh very heavily as an explanation of the failure of the recent recovery to reach full employment.[1]

Professors Glenn E. McLaughlin and Ralph J. Watkins of the University of Pittsburgh set forth the implications of economic maturity in the following language:

> Despite the phenomenal industrial gains in the American economy, there are increasing signs of retardation of both population and industrial growth, signs which suggest that the United States is approaching a stage of industrial maturity. The special committee on population problems

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[1] 76 Cong. 1 sess., *Investigation of Concentration of Economic Power*, Hearings before the Temporary National Economic Committee, Pt. 9, pp. 3503-04, 3514.

of the National Resources Committee has estimated that maximum population will be attained within one or two generations, the most optimistic peak being set at 187 million people in 1980 and the most probable at 154 million people in 1980.[2]

> . . . Industrial maturity is likely to bring with it more serious and more frequent periods of under-utilization of the factors of production. Shortage of capital for social improvements develops just at the time when social consciousness emerges to demand such improvements. . . . In short, it is probably fair to say that an enterprise system functions best in an expanding economy; and that the appearance of industrial maturity raises profound questions concerning the ability of an enterprise system to produce a progressive evolution of the economy under conditions of maturity. We believe that it is essentially these questions which lie behind the transformation of economies throughout the world in recent years—transformations involving increasing public participation. The problem of the American economy is to adjust itself to these influences and at the same time to preserve the maximum benefits of an enterprise system.[3]

The arresting of the rate of population growth is evidently regarded as a primary factor in the situation. This point is emphasized in the foregoing quotations, and numerous other writers take a similar position.[4]

A primary implication of the conception of economic maturity is that government must increasingly supplant private enterprise. A great expansion of government activity is deemed essential both as a means of providing outlets for investment money and work for individuals who could not otherwise find employment. In testifying before the Temporary National Economic Committee, Professor Hansen concluded that "private investment will have to be supplemented by public investment on a considerable scale." In the same hearings Adolf A. Berle, Jr., assistant secretary of state, reached the following conclusion:

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[2] *American Economic Review Supplement*, March 1939, p. 3.

[3] The same, p. 14.

[4] In the minds of some the conception of maturity in an economic system is analogous to the conception of maturity in a living organism, which grows rapidly for a certain number of years and then tapers off until a stationary level is reached As one writer puts it:

"Our mechanical civilization has grown up. Its growing up—the leveling off of the rise in our production—is not a phenomenon of any so-called business depression of mysterious or political origin. . . . It is the culmination of our growth and the ending of a long chapter in our history, and just as inevitably the beginning of another. It is the result of the maturing of our mechanical culture, which cannot be induced to continue its former rate of growth, any more than a man of twenty-two can be made to grow like a youth of fourteen by any medicine or system of exercise." Roy Helton, "One Hundred Billion a Year," *Harper's Magazine*, August 1938.

It is reassuring to note that this analogy is not carried through to the ultimate implications of decay and death.

> . . . The government can create, and does create, wealth in the form of roads, parks, public buildings, public hospitals, and the traditional public services of the federal, state, and local units. Plainly, these as they now stand are not sufficient to serve as the market for more than a fraction of the capital goods production in the United States. If, therefore, wealth is to be created by creation of government debt, the scope of government enterprise must be largely increased. Briefly, the government will have to enter into the direct financing of activities now supposed to be private; and a continuance of that direct financing must mean inevitably that the government ultimately will control and own those activities. . . . Over a period of years, the government will gradually come to own most of the productive plants of the United States.
>
> This is certainly so fundamental a change in the course of American life that the decision to make it should be taken for reasons other than relief of a series of temporary difficulties. If the country desires to make wealth creation a function of government (I personally believe it must do so in larger measure than it has heretofore), the choice should be the considered choice of the country and not the result of a policy of drift.[5]

Mr. Berle suggests a financial plan for promoting this development. He would establish a system of "capital credit banks" which would render current savings (and also potential credit resources) available to government bodies for capital developments of any type that would provide employment and promote the public welfare. While these new banks would also be permitted to make loans to private enterprise, such loans would presumably be at normal rates of interest. Those to government bodies, however, would be merely nominal—perhaps in dull times as low as one-eighth of 1 per cent. In these government undertakings profit considerations would not be considered—even though they were directly competitive with private enterprise. In so far as this plan increased government expenses, private enterprise would presumably be expected to provide the necessary funds through increased taxation. A feature of Mr. Berle's plan, however, is that the scheme would not cost much because of the possibilities of credit expansion.[6]

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[5] From mimeographed release of testimony before Temporary National Economic Committee, May 16, 1939.

Evidence of the phenomenon of industrial maturity is said to be found in statistics of production. While Hansen merely refers in general terms to the restricted volume of production in recent years as compared with the twenties, McLaughlin and Watkins undertake to give more specific evidence as follows:

> . . . Among nearly all major industries, there has been a notable slowing down in the rate of growth since the World War. In some industries, production trends are horizontal or negatively inclined. Coal production has tended to drop since the World War, and there has been a significant downward trend in railroad passenger traffic since 1920, the present traffic volume being only about one-half what it was at that time. Although production trends continue moderately upward in steel, some branches of the industry, notably rails and wire rods, are characterized by falling trends. Passenger automobile production was roughly 15 per cent lower in 1937 than in 1929, although the trends of the industry may still be upward. Railway freight traffic has also failed to pass its 1929 peak. Moreover, it is problematical whether the construction industry will soon pass its 1928 peak.[7]

Production data do not support the thesis that the United States has reached a stage of economic maturity. It will be observed that most of the comparisons presented in the foregoing quotation are between the late twenties and the late thirties. The fact that the output in 1937 was lower than in 1929 does not establish any declining *trend;* it merely indicates that the recovery and expansion movement in the thirties did not reach as high a level as in the twenties. Whether this was due to underlying forces of a permanent character or to temporary factors in the economic and political situation is of course the paramount question at issue.

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[6] Mr. Berle gives generous credit to the undersigned for the discovery of the great significance of bank credit expansion in the economic development of the country, and concludes that my analysis pointed to "a definite reorganization in the banking structure." The articles in question (*Journal of Political Economy,* 1918) did not draw any such inference; on the contrary they pointed to the conclusion that the banking system had been functioning exceptionally well in providing funds for agricultural and industrial development. The reader is here referred to pp. 24-26 of the present volume for a brief statement of the significance of bank credit expansion. H.G.M.

[7] *American Economic Review Supplement,* March 1939, pp. 3-4.

The fact that coal production and railroad passenger traffic have declined ever since the Great War does not indicate that *fuel* production and passenger *transportation as a whole* have declined. That there has been a substantial shifting from coal to other forms of fuel and from railroad passenger cars to other forms of conveyance is well known. McLaughlin and Watkins recognize that to establish the fact of maturity it would be necessary to show that the rate of growth of *total production* is slowing down; but the evidence which they cite throws no light on the total quantity of production.[8]

Comprehensive indexes relating to the aggregate volume of production show no tapering off prior to the depression following 1929. For example, Carl Snyder's indexes of trade and production show a virtually constant percentage rise over a long period of years.[9] There is thus no adequate support for the contention that a *permanent* slowing down in the rate of industrial growth has already occurred. All that can be said is that—for whatever reasons—the volume of production in the late thirties has been below the level of the late twenties.[10]

The factor regarded as of controlling importance in bringing about economic maturity—as the quotations given above indicate—is the declining rate of population growth. If the growth of population has been the dominating factor in American economic expansion in the past one would expect to find a close correlation over the years in the rate of population growth and the rate of increase in production.

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[8] They state that Arthur F. Burns has shown that "there is considerable evidence that most individual industries in agriculture, mining, and manufacturing have experienced abatement in their rates of growth since 1870 and that very likely this abatement is true as well of the individual branches of forestry, fisheries, construction, transportation, and trade." Burns does not, however, give any figures of *aggregate* production.

[9] For "trade and production" index (for 5-year intervals) from 1800 to 1925, see *Capitalism, the Creator,* p. 69; for "production" index, 1870-1925, see *Business Cycles and Business Measurements,* p. 239; for "composite production and trade" index, 1910-29, see *Capitalism, the Creator,* p. 106.

[10] Some of the confusion with respect to the significance of long-term trends has arisen from the examination of curves which show percentage rather than absolute increases. If the increase of production is constant in amount and the successive annual totals are charted, the line will rise steadily and appear as a straight-line upward trend. If, however, each year's production is charted as a percentage change the curve will appear to be gradually flattening out. Since both curves are based on the same production data their differing slopes can in no way alter the underlying fact. Yet the former curve suggests that all is well with economic progress, while the latter carries an ominous portent of impending doom.

A decreasing rate of population growth in the past did not check economic expansion. The increase in population in the United States by decades since 1800 has been as follows:

Year	Number (In millions)	*Percentage Increase in Decade*	Year	Number (In millions)	*Percentage Increase in Decade*
1800	5,308	*35.1*	1870	38,558	*22.6*
1810	7,240	*36.4*	1880	50,156	*30.1*
1820	9,638	*33.1*	1890	62,948	*25.5*
1830	12,866	*33.5*	1900	75,995	*20.7*
1840	17,069	*32.7*	1910	91,972	*21.0*
1850	23,192	*35.9*	1920	105,711	*14.9*
1860	31,443	*35.6*	1930	122,775	*16.1*
			1940	132,150 (est.)	*7.6*

It will be seen that the rate of population increase declined almost continuously from 1850 to 1900—the low figure for 1870 reflecting the influence of the Civil War. There were slight variations in ensuing decades, but with the trend continuing downward. If the rate of population increase had been of controlling importance we should have had a sharply declining rate of increase in production as early as 1870, with a continuing downward trend to the present time. But indexes of aggregate production, as already noted, do not show any declining trend during this period. A factor which does not show results until after it has been operating for 60 years can hardly be regarded as of "dominating importance." Other factors must have been of greater significance.

If further evidence is needed to show that production can increase even though population be practically stationary, it is available in the history of France. In the 20-year period preceding 1913 the population of France increased only 4 per cent. In those two decades, however, the volume of production increased as much as 20 per cent.[11]

The conception of population growth as a controlling factor in

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[11] It may be recalled here that the classical economists of the nineteenth century tended to look upon increasing population as a menace rather than a stimulus to economic progress. They cited China and India in support of the view that a steadily increasing population presses against natural resources, keeps standards of living at the minimum of subsistence, and tends to prevent the introduction of labor-saving devices which might increase productivity. In short, natural resources were regarded as setting the limits to expansion and rising standards of living.

economic expansion involves an elementary fallacy. It is based on the assumption that the only impetus to economic growth is that which comes from increased numbers of people. The fact is that economic activity—the use of our labor power and our capital equipment—has always been directed to a double purpose: (1) the production of goods to care for the primary needs of *increasing numbers* of people; and (2) the production of increasing quantities of goods for the *already existing*, as well as for the increasing, population. Stating the matter in individual terms, we seek not only to produce enough to provide our children with necessities, but we hope to enable them, as well as ourselves, to achieve higher standards of living than were enjoyed by our forefathers.

These general statements may be translated into specific terms by reference to what actually occurred in the great area of expansion from 1900 to 1929. We did, it is true, devote our energies to the production of primary goods and services for a steadily expanding total population, but at the same time we were constantly producing more for the already existing population. In the course of this 30-year period as a whole, the production *per capita* rose almost 40 per cent. Similarly, the expansion of the nineteenth century, both in America and Europe, was accompanied by increasing output *per capita*, as technical and organizational improvements constantly increased the efficiency of production.[12]

Why should a cessation of population growth make it necessary for us to refrain henceforth from producing more and still more for the existing population? Are not the unfilled wants and unsatisfied desires of the present 132 millions of people just as real a source of potential demand as the elemental needs of those who may be born in the years ahead?

The character of our productive output must of course be modified as population ceases to grow. Instead of additional bread and potatoes for more hungry mouths, we should provide a greater variety of food for a population receiving better nourishment. Instead of additional hovels, shacks, and tenements, we should build houses and apartments of improved design. Instead of bare floors and walls and the most meager household equipment, we might have attractively furnished homes equipped with adequate labor-saving devices. So long as human wants remain unsatisfied there will be opportunity for the further expansion of production.

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[12] Hansen makes a passing reference to this fact, but without apparently incorporating it into his thinking. After stressing population growth as the *one central fact* which dominated the whole of economic life, he goes on to say: "The enormous capital outlays of the nineteenth century were, of course, in the first instance conditioned by new technological developments. . . . It seems not unreasonable to suppose . . . that approximately *one-half* of the capital outlays of the past century were due to the growth of population and its expansion into new territory." Italics supplied. Hearings before the T.N.E.C., Pt. 9, 3504.

The view that a decrease in the rate of population growth *necessarily* means a check on economic expansion cannot be supported either on the basis of economic analysis or historical experience. All that can be said is that with a stationary population it becomes more difficult to forecast the types of goods that may be demanded in the future. The significance of new industries in relation to economic expansion will be given consideration in a later section of this chapter.[13]

The foregoing discussion should not be interpreted as implying that an economic system does not pass through various stages of development and undergo constant evolution. American economic conditions today are obviously different from what they were in our earlier history. As industrial society becomes more highly complex the problem of making the system operate smoothly and effectively becomes increasingly difficult—both from the point of view of private enterprise and government regulation and control. In a highly developed and wealthy society the distribution of income in relation to investment and consumption presents issues not found under more primitive conditions; but it does not follow from these facts that we are necessarily faced with stagnation so far as private enterprise is concerned, and that the only hope for the future lies in an expansion of public enterprise.

II. POTENTIALITIES FOR NEW CAPITAL

Having considered the validity of the conception of economic maturity, we may now turn to a more specific analysis of the potentialities of capital expansion in the future. We shall analyze the possibilities in three steps. The first relates to what is involved in achieving a level of production, per capita, equivalent to that of 1929; the second to the requirements of the increasing population forecast for the next 40 years; and the third to the raising of standards of living to certain assumed levels. In the nature of the case, no claims to precision can be made for any of the figures which will be presented; all that they pretend to do is to indicate in a very rough way the capital requirements necessary to attain certain potential ends.

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[13] See pp. 181-83.

To guard against misunderstanding, it should be stated, also, that the analysis is in no way intended as a prophecy as to what volume of new capital is likely to be constructed in coming years. The actual trend will depend upon a complex of economic and political factors which are unpredictable. We are here concerned only with requirements.

A. Restoring Productivity to the 1929 Level

An appraisal of the trend with respect to physical capital during the thirties necessitates consideration of the replacement of the existing capital supply, as well as of the restriction of new capital developments. It should be borne in mind that capital is being used up even though plant and equipment are not actually dismantled and scrapped. A machine that has become ten years older may still be in use, but its remaining life is none the less ten years shorter; and if productive efficiency is to be maintained it must be replaced that much sooner.[14] We are here concerned chiefly with depreciation—the factor of obsolescence being reserved for subsequent consideration.

The extent to which the existing physical capital supply was maintained in the thirties varies widely in different divisions of economic activity. It appears that in some lines the supply was well maintained and even increased; but in others there was not only no expansion but an actual contraction as a result of the using up of existing plant and equipment without replacement. We shall not here attempt any new quantitative measurement of the extent to which the supply of physical capital in the various industries has been affected by the economic changes of the last decade. A few illustrations will, however, serve to indicate the nature of the problem of capital replacement.

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[14] Plant that is not in use is likely to deteriorate as fast as when in operation; and idle equipment often depreciates at about the normal rate.

1. *Industrial machinery.* The effective life of most types of industrial machinery is commonly regarded as approximately ten years. Moreover, depreciation is commonly charged at the rate of 10 per cent annually—a rate which is allowed by the income tax authorities as a basis for computing taxable income. As a practical matter, machinery if kept in repair will usually last considerably longer than ten years; and the 10 per cent depreciation rate is intended to make some allowance for obsolescence. But in any case the average age of installed machinery at different time periods throws light on the need for replacements.

A survey made by the *American Machinist* as of the middle of 1937 indicated that 61 per cent of the machines in place were over ten years of age, a figure which may be compared with 48 per cent in 1930 and 44 per cent in 1925.[15] In a more recent survey the Warner and Swasey Company of Cleveland polled 251 corporate users of machine tools as to the age of their equipment and the extent to which replacements were made in the three years 1936 to 1938 inclusive. This census showed that of 120,864 machine tools in place, 67.3 per cent had been bought prior to 1928, and only 9.6 per cent in the three years 1936 to 1938. The striking fact brought out by these figures is that even in the comparatively good years 1936 to 1938, the average rate of replacement had been only 3.2 per cent. It is evident from these figures that in the important metal working industry very extensive replacements will have to be made within the next few years if the former productive capacity is to be maintained.

On the basis of reports of the Bureau of the Census, supplemented by information obtained directly from machinery manufacturers, the Association of Cotton Textile Merchants of New York has recently made a survey covering the number and age of textile machines.[16] The survey shows that the number of spindles had decreased from 35,267,086 on January 1, 1929 to 25,986,620 on

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[15] Estimated by John Haydock, "Plant Rehabilitation Only Started," *American Machinist*, Oct. 20, 1937.

[16] See *Ten Years of Cotton Textiles.*

January 1, 1939—though because of great improvements in the quality of new machines the capacity has not proportionally declined. From the figures given for new installations it appears that on January 1, 1939 nearly 87 per cent of the spindles were more than ten years old.

The age of box looms has been surveyed by the Crompton and Knowles Loom Works of Worcester, Massachusetts.[17] It was found that of a total of 193,399 box looms in place as of January 1, 1937, 80 per cent were ten years of age or more. In the silk and rayon division the percentage ten years of age or over was 74; in the woolen industry, 81; and in the cotton industry, 88.

In such fields as automobiles and automobile parts, chemicals, and electrical equipment, the average age of installed machinery has probably not increased appreciably. In some fields, moreover, there has been a real increase in capacity. Even in the iron and steel industry the capacity appears to have increased somewhat. But included in the total capacity is plant and equipment dating back to the World War period and beyond.

2. *Railroad rolling stock.* In the case of locomotives the general view is that 30 years represents the maximum of efficient life, this time span being used by the Interstate Commerce Commission in its depreciation charges. This does not mean that a locomotive with repeated repairs may not be used for a much longer time than 30 years; but it does mean that the company could save money by replacing the locomotive even if the new engine were not of a superior model; that is, the cost of keeping the old engine in repair exceeds the depreciation and maintenance charges on a new one.

From December 31, 1929, to the end of 1938 the number of serviceable steam locomotives decreased 25 per cent, and the tractive power by approximately 17 per cent. Meanwhile locomotives 20 and more years old increased from 36 to 69 per cent of the total. At the end of 1938 less than 5 per cent were "strictly modern," that is, under ten years of age, as compared with 20 per cent at the end of 1929. As of December 31, 1938, 28.06 per cent of the serviceable locomotives were 29 or more years old; and another 23.83 per cent were from 24 to 28 years old.[18]

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[17] See *Crompton and Knowles Box Loom Census.*

The number of railway freight cars decreased between 1929 and 1938 by 596,841, and the total capacity declined by 22 per cent. Notwithstanding the fact that the cars which had been scrapped were naturally the oldest ones, at the end of 1938 as many as 25 per cent were over 25 years of age, another 20.5 per cent from 21 to 25 years of age, and 16.5 per cent from 16 to 20 years of age. Only 9 per cent were under five years of age. Since the proper life for railway cars is regarded as 15 to 20 years, it is evident that more than half of the existing supply of freight cars are at the age of replacement.

It should be carefully noted here that there has been a great increase in the efficiency of utilization of both locomotives and cars, and that in consequence a decrease in the number cannot be regarded as an accurate measure of the number of replacements that must be made.[19] However, the fact that even so moderate an improvement in the volume of traffic as occurred in the autumn of 1939 resulted in a shortage of rolling stock is evidence of the need for extensive replacements. In fact, large orders were then being placed for new rolling stock.

Railroad machine shop equipment has likewise aged. The virtual cessation of demand for rolling stock during the thirties left the equipment shops without incentive either to expand or to replace depreciating equipment. It is estimated that in 1937 over 70 per cent of the machines in the average railroad shop were over 20 years of age.[20] There was little if any improvement during the ensuing two years.

3. *Electric power industry.* The useful life of a steam electric-generator—apart from obsolescence—is regarded as being 20 years at the most. Steam plants comprise about 70 per cent of the total electric power capacity. In 1934 a little more than 10 per cent of

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[18] 1929 data from *Wall Street Journal*, Nov. 25, 1930, p. 1; 1938 data from Interstate Commerce Commission *Statistics of Railways*, pp. 5-15, 16.

[19] It should also be borne in mind that the railroads now carry a smaller percentage of the total traffic than was the case in 1929. This development means that the railroads will not have to make as extensive replacements as would otherwise be necessary.

[20] *Railway Age*, Jan. 1, 1938, p. 17.

the total steam capacity was 20 or more years old, and 56 per cent was 10 or more years old.[21]

In the last five years, although some of the old plant and equipment has been retired, new plants have increased the total steam capacity about 10 per cent. However, by the end of 1939 at least 35 per cent of the capacity was from 15 to 25 years of age and another 28 per cent from 10 to 15 years old. That is to say, more than 60 per cent of the present steam electric plant should be replaced or rebuilt within the next few years.

4. *Plant and structures.* The foregoing discussion—except for the electric power industry—has related solely to *equipment.* On the whole, replacement of plant has apparently been much less extensive than the replacement of equipment.[22] This is partly because increases in equipment constitute the more pressing requirements and in part because they yield larger immediate returns in the way of increased efficiency. While in some lines there has been considerable overhauling of plant, as well as equipment, a substantial percentage of the country's fixed industrial properties have remained basically unchanged since 1929.

In the railroad industry the rehabilitation of way and structures has been at a very much lower rate than normally. The situation varies widely in manufacturing, but in many lines the factories, as distinguished from equipment, have undergone little reconstruction. There has been even less replacement of commercial buildings such as stores, warehouses, offices, and hotels.

Data with respect to capital expenditures indicate that replacement since 1929 has been subnormal. Unfortunately, there are no figures which segregate outlays for the rehabilitation, modernization, or replacement of existing plant and equipment from purchases of materials with which to build new plant and equipment. Various compilations have, however, been made showing the magnitude of the total expenditures for capital goods (gross capital formation).[23] These data indicate that the volume of goods "destined for capital construction" was at a very low level from 1931 to 1935 inclusive, and that only in the years 1936 and 1937 did they approach the level of the late twenties. They thus lend support to the conclusion derived from an analysis of the average age of plant and equipment.

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[21] Federal Power Commission, *National Power Survey, Power Series No. 1*, pp. 22, 24.

[22] Data compiled under the auspices of the Federal Reserve indicate that outlays for plant even during the active period of 1936-37 increased very much less than outlays for equipment. Unpublished reports compiled by George Terborgh.

It should be noted at this place that the "index of industrial production" in the last quarter of 1939 was at a level comparable to that of 1929. It does not follow from this fact, however, that physical capital—even in the field of industry—had not shown positive deterioration. Only a small proportion of the plant and equipment in existence in 1929 had actually been scrapped by 1939, and hence it was still available for productive operations. The fact cannot, however, be escaped that the average age has greatly increased and that extensive replacements will in due course be indispensable if productive capacity is to be maintained. It will be recalled that even the wonderful one hoss shay collapsed eventually.

As stated at the beginning of this discussion, no new quantitative estimates of capital shortages in the various fields of capital enterprise will here be presented. However, in a previous study[24] the Brookings Institution has attempted to estimate the general magnitude of capital arrearages as of the end of the year 1936. Account was taken both of the outright impairment of physical capital and the additional plant and equipment required to provide for the needs of the increase in population which had occurred. While no claim to precision was made for any of the detailed estimates, it was believed that the aggregate represented a rough approximation to the truth.

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[23] The two most comprehensive estimates are those compiled by Simon Kuznets for the National Bureau of Economic Research and by George Terborgh for the Board of Governors of the Federal Reserve System. In both cases the estimates are intended to show the amount of goods actually destined for capital construction—whether for *replacement* or *expansion.* As the authors indicate, the figures are at best rough approximations; and it should be noted that there are substantial differences in the results obtained. For example, in the years 1931 to 1936 inclusive, the National Bureau figures show a *net reduction* in the volume of productive business capital (exclusive of inventories) of about 5 billion dollars (1929 dollars). For the same years Terborgh's estimates show a reduction of nearly 9 billion dollars. An important difference between the Kuznets figures and the Terborgh estimates is found in the inclusion by the former of machine parts as capital additions, whereas Terborgh classifies them as repairs; but this is by no means the only cause of divergence in the estimates.

[24] *The Recovery Problem in the United States* (1937).

The aggregate increase of capital required to make good the impairment and to provide for the increased population was estimated at somewhere between 22 and 26 billion dollars. Something like 10 or 11 billions was in the field of industrial and commercial enterprise; about 2.3 billions in steam railroads; 1.5 billions in agriculture; and about 9 billions in housing which, though a consumer good, is financed largely through the capital market.

It does not appear that any great change in the situation has occurred since 1936. From the standpoint of capital reconstruction, there has been one comparatively good year, followed by one bad and one fair year. Meanwhile, all of the existing plant and equipment has become three years older; and meanwhile, also, the population has continued to expand at the rate of over 900,000 a year.

B. Provision for Projected Population Growth to 1980

As indicated in the quotation on page 163, the population of the United States is expected to continue to increase until 1980. The fact that the maximum population estimates for that date vary as widely as from 154 millions to 187 millions indicates their speculative nature. The truth is that no one can forecast the future of population trends with assurance—for changing economic, social, and spiritual or ideological factors might materially affect the trend of the birth rate. It is not impossible that the decline in the rate of births in the thirties is in part due to the depression itself and the necessary postponement of marriages and the assumption of the responsibilities of rearing children. But taking the preceding estimates at face value, it would appear that we may expect an increase in population in the next 40 years of from 22 to 55 millions.

How great an increase in capital would be necessary in order to place this new population on a basis with respect to capital equivalent to that of the existing population of 1929? The answer, in rough general terms, may be furnished by means of a very simple computation.

In 1929 the value of the productive plant and equipment and business inventories of the country was approximately 138 billion dollars, or about $1,120 per capita. If the population of 1980, estimated at 154 millions, were supplied with business capital on precisely the same basis as was the population of 1929, the capital supply in 1980 would have to be about 34 billion dollars greater than it was in 1929. This would involve an average annual rate of increase over the next 40 years of about 850 millions. If the population increased, in accordance with the higher estimate, to 187 millions, the increase in plant and equipment and inventories required to maintain the same ratio to population would be about 70 billion dollars, or 1.75 billions annually.

These figures, it should be observed, relate only to business capital—plant and equipment and inventories. They do not relate to investments in land, whether agricultural or urban or whether for residential or building sites. They do not include investments in public capital—federal, state, or local—such as highways, street railways, water and sewer systems, and other municipal utilities. Finally, they do not make allowance for additional housing requirements.[25]

C. Capital Requirements for Higher Living Standards

The achievement of higher standards of living is made possible by the application of scientific discoveries and inventions to the processes of production, thereby increasing the volume of goods and services that can be produced. New capital instruments of increased efficiency and improved industrial methods replace obsolete capital and organization, and these in turn give way to still newer technological advances. As such new advances in productive techniques come to be universally applied and as the number or size of establishments increases, the aggregate productive capacity is greatly expanded—making possible an increased output of goods and services for the satisfaction of human wants.

In a preceding analysis of capital replacements, we were primarily concerned with what would be involved in replacing aged and depreciated equipment with new equipment of the same productive quality. Worn out plant and equipment should, of course, be replaced by more efficient capital whenever this is possible; and it is also desirable to replace capital which, though still usable, has become obsolete and hence economically inefficient. During the last 20 years great advances have been made in the efficiency of capital instruments; and accordingly no small part of the supply of productive capital instruments should, in the interest of higher living standards, be replaced just as soon as possible. A few illustrations will serve to indicate the nature of these possibilities.

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[25] See discussion, p. 185.

1. *Modernization requirements.* During the last 10 or 15 years revolutionary improvements have been made in the design and quality of machine tools. In the railway equipment field, for example, a substantial percentage of machine tools is obsolete. The older machines are not only highly inefficient from the standpoint of cost, but they are no longer able to meet the demands for quality and accuracy of finish. The excessive cost involved in continuing the use of such obsolete tools may be illustrated as follows. A study recently made of 90 representative locomotive machining operations now being performed on machines over 20 years of age indicates that the time required could be reduced by an average of 42 per cent if the work were done with the newer types of equipment. In addition, there would be large savings in maintenance costs and from reduced electric power consumption. There are many cases on record in which individual units of new shop equipment have paid for themselves in from one to two and a half years.[26]

To cite another example, sintered carbide-tipped tools have increased the speed of cutting metals as much as 300 per cent in some cases, and at the same time the durability of the cutting edge has been greatly increased.[27]

For many years prior to the twenties there was little change in the quality of textile machinery, new installations being made only as the demand expanded sufficiently to warrant an increase in aggregate capacity. But since about 1925 the emphasis has been placed upon improved machinery. Most of the new weaving machinery has been installed either for the purpose of reducing costs or for the manufacture of new fabrics which, because of width or other conditions, could not be woven on existing equipment. Economies are found in greater speed of operation, fewer stoppages, and improved quality. In the silk and rayon sections of the industry, new installations have been made simply because the old looms were unsuitable for the production of rayon fabrics. It is the view of the industry that, because of the technological advances which have been made in the last 15 years, box looms over ten years of age must be regarded as definitely *obsolete.*

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[26] These data are from "New Machine Tools, Greatest Need in Shop Equipment," *Railway Age*, Jan. 1, 1938.

[27] See *Fortune Magazine*, February 1940, p. 142.

In the mining industry, recent technological developments have opened the way for further mechanization involving large capital outlays. Over 80 per cent of the present drilling operations are still done by hand instead of by electric drills.[28] The development of the power shovel, for example, has opened up possibilities for strip mining. Mechanical loading also presents an important field for capital expenditure, since less than 15 per cent of the underground production of bituminous coal and little more than 20 per cent of the output of anthracite is loaded by mechanical means. Moreover, only about 12 per cent of the coal output is now cleaned by machine. Deep mining requires additional investments of capital in loading and lifting equipment and also in cooling the air by artificial refrigeration.[29]

In the field of steam power generation of electricity there has been a great advance in efficiency in recent years. The average number of pounds of coal used in the production of a kilowatt hour of current was 10 in 1880; 5 in 1900; 3 in 1920; 1.6 in 1930; and 1.4 in 1938. This improvement is due to the fact that the newer turbines have been able to use progressively higher steam pressure. An illustration of this increased efficiency is afforded by the performance of a steam plant in Detroit which was rebuilt about 1934. The heat energy required to produce a given amount of power was thereby reduced from 19,000 to 13,000 units—a 30 per cent decrease in fuel consumption. At that time nearly 40 per cent of the steam capacity of the entire country required from 18,000 to 30,000 units of heat energy, and about 5 per cent required over 30,000 units.[30]

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[28] F. G. Tryon, National Resources Committee on *Technological Trends and National Policy,* p. 152.

[29] The same, p. 153.

A very substantial part of the railway plant and equipment of the country is in need of replacement in the interest of decreasing costs. Great improvements have been made in the last decade in the tractive power of engines and in the capacity and serviceability of other rolling stock. There is, for example, a vast amount of obsolescence in box cars as a result of changes which have occurred in the kind of freight service demanded. The present box cars are not well suited for many commodities, and they do not offer protection against shocks when operated at the high speeds now required by shippers. The increase in the weight and speed of engines and trains results in greater wear and tear on road-beds, necessitating progressive improvements in way and structures. In addition, vast capital expenditures are still to be made in connection with the elimination of grade crossings, the reduction of curves and gradients, and the readjustment and reorganization of terminal connections and facilities.

Great improvements in highway facilities are also required both in the interests of decreasing costs and increasing safety. During the past three or four decades the primary emphasis in highway programs has been upon the addition of new surfaced mileage. Most of the older highways have been constructed to accommodate smaller and slower cars, buses, and trucks than those which are now in operation. The Commissioner of Public Roads estimates that of the 226,000 miles of federal aid highways (representing about 7 per cent of all rural highways) as much as 50 per cent was designed with a view to a speed of 35 to 45 miles an hour.[31] At the present juncture, the primary requirement is the improvement in the quality of roads through the laying of better foundations, the straightening of curves, the reduction of grades, the passing of roads above or below other highways or railroad crossings, and additional one-way traffic lanes.

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[30] Federal Power Commission, *National Power Survey, Power Series No. 1*, 1935, p. 25.

[31] Address by Thomas H. MacDonald, Commissioner of Public Roads, Oct. 10, 1939.

Still more important is the necessity of improving and modernizing urban highway facilities. Not only are the streets of many of our cities in serious need of strengthening in the interests of accommodating an increasing weight of traffic, but there is a vital need for the extensive reorganization of urban highway routes and facilities. This involves not only wider main arteries but also by-pass or diversion routes and over-pass and under-pass facilities which will relieve congestion and permit increased speed and safety in the moving of traffic into or out of congested urban areas. Recent traffic surveys show that the destination of a substantial part of all vehicular traffic is to points within large urban centers. The condition in some of the eastern cities is indicated by the statement that twentieth century traffic is forced to use eighteenth century streets.[32]

Inextricably connected with the readjustment of urban highway systems and railway terminal facilities is the rebuilding of urban, industrial, commercial, and residential areas. Most of our cities have been built to meet the needs and conditions of a former age. Apart from any social or aesthetic considerations the reconstruction of American cities in the light of changing factors in the transportation system is a paramount requirement of the future.

2. *New industries.* The view has often been expressed that further economic expansion will depend largely upon the discovery and development of some great new industry. It is recalled that the railways, the iron and steel industry, public utilities, and the automotive industry in turn gave a great impetus to industrial growth. It has seemed to many, therefore, that a new period of vigorous development must in the nature of the case wait upon the emergence of another major industry, the character of which is as yet undiscernible.

In view of the enormous requirements that have been outlined above in connection with the replacement and further development of existing industries, it would appear to be evident that a very great growth could occur in the years that lie ahead, even if there were no development of significant new industries. So long as there remain vast unfulfilled demands for existing kinds of goods, new types of product are not indispensable.

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[32] Report by the Bureau of Public Roads, 1939, pp. 95-96.

New industries may serve to shift potential demands from existing lines into new channels, thereby rendering much existing plant and equipment obsolete and requiring the construction of new types of capital goods. New products, such as the automobile for example, may carry so great an appeal as not only to divert potential savings into consumptive demands but also to stimulate purchases on a credit basis, thereby accelerating the tempo of business activity. Or, they may so affect the economic structure as to entail important changes in the location and the organization of other industries. While the emergence of new industries is thus of undoubted importance, it does not appear that the whole process of growth is dependent thereon or that they are of controlling significance.

In any case, it would seem that new industrial developments of quite as great importance as any which have occurred in the past are easily within the bounds of possibility. Evidence with respect to new industrial possibilities is abundant. A number of very important developments are already well under way, some of which may easily prove to be of as far-reaching significance as any of the great developments of the past. Among these may be mentioned: synthetic fibers and textiles; plastics; television; photo-electric cells; air conditioning; airplanes and air transportation; and pre-fabricated houses. Whether these are referred to as new products or new industries, and whether carried out by new companies or established enterprises, is immaterial: the economic potentialities are the same in any case.

Chemistry, significantly enough, is not ordinarily included in the list of great industries which have played an important role in promoting industrial growth. The explanation is that chemistry is not so much an industry as a process. It is concerned with the *transformation of matter* and its primary importance lies in its fructifying influence. From the economic point of view its basic significance is found not only in the wealth of new and important products which it creates, but also in its effects upon efficiency and costs of production in the many industries to which it contributes. Recent developments in the broad field of chemistry have already laid the foundations for industrial changes of far-reaching significance.

3. *Production requirements.* Whether our future industrial activity is directed to the production of existing or new types of products, it is clear that the total volume of goods and services must be increased if the people are to enjoy rising standards of living. Our next task, therefore, is to indicate the magnitude of the *capital expansion* required to achieve certain potential standards of living. It is desirable to base the discussion on production and income data for the last year before the depression when the highest standards of living thus far attained were realized.

In 1929 the aggregate national income (representing the value of the goods and services produced) was approximately 82 billion dollars. If this income had been divided equally among the American people, it would have given to each individual approximately $660—the equivalent of about $2,700 per average family. The income was not, however, evenly distributed: 21 per cent of the families had less than $1,000; 42 per cent less than $1,500; and 60 per cent less than $2,000.[33]

The increase in production that would be necessary in order to realize certain modest objectives with respect to living standards (for the 1929 population) may be indicated as follows:

To raise the average income of the entire population 15 per cent would have necessitated an increase in production of over 12 billions of dollars.

To raise the minimum family income to $2,500, with no changes above that level, would have required an increase of about 16 billion dollars.

To increase the income of all families below the $10,000 level by $1,000, without modifying the income of the higher groups, would have necessitated an increase of production of 27 billions of dollars.

To provide the entire population with an income sufficient to furnish what the Department of Agriculture calls a liberal diet—furnishing adequate nutrition, a substantial margin of safety with respect to vitamins and minerals, and a satisfying variety of foods, and at the same time permitting the purchase of such necessities and comforts as are ordinarily associated with a liberal diet—would have required an increase in production of 60 billion dollars.

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[33] See *America's Capacity to Consume,* Chap. V, published by The Brookings Institution.

Even the last of these estimates does not assume as much as a doubling of the standard of living. It affords no great margin for luxuries, or for the savings essential to economic security.

4. *Capital requirements.* We may now indicate what would be required in the way of additional productive capital to make possible such increases in national income. We may make a very rough calculation on the basis of the ratio of capital investment to national income in 1929. The productive capital (including plant, equipment, and business inventories) aggregated approximately 138 billion dollars, or about 1.7 times the amount of the national income. Allowing for the fact that there was considerable unused capacity a ratio of 1.5 will be used in this computation. On this basis, the increase of capital required to provide the various levels of income outlined above would have been roughly as follows: in the first instance, 18 billions; in the second, 25 billions; in the third, 40 billions; and in the fourth, 90 billions. These estimates are on the basis of 1929 prices.

These estimates may be projected forward to the year 1980 on the basis of the minimum and maximum population estimates for that year. If a population of 187 millions in 1980 were to be supplied with the modest standard of living suggested in the last assumption on the preceding page, the aggregate production in that year would have to be 210 billion dollars. For a population of 154 millions, the income requirement would be 175 billions.

If the 1929 ratio of business capital investment to national income were to continue to prevail, the total capital required in 1980 to produce 210 billion dollars of income would be 315 billions, an increase in the private capital supply of over 180 billions, or about *4.5 billion dollars annually.* If the population reached only 154 millions, the private capital investment, figured on the same basis, would amount to about 262 billions, an increase of roughly 120 billions, or approximately *3 billions annually.*

These estimates must be regarded as the roughest sort of approximations. On the one hand, they are based on assumptions as to rising standards of living and on population forecasts which, under conditions of stable expansion, might well be in error. On the other hand, they make no allowance for technological advances and consequent increases in the efficiency of new capital instruments, which lessen the amount of capital investment required to yield a given output.[34] Nor do they take account of possible changes in the level of prices and costs, either upward or downward. They nevertheless serve to indicate that if the American people are to realize the standards of living to which they aspire, the capital requirements in the field of private enterprise during the next generation are of a magnitude comparable to those of any period in the past. It may be recalled that in the twenties the aggregate outlays for new plant and equipment averaged less than 3 billion dollars annually.

It should be carefully noted that the estimates given do not cover the entire range of potential investment outlets for *money* savings. They do not include possible foreign demands for American capital; they do not cover such great fields of public investment as highways and streets, sewers, water works, and other municipal utilities; and they make no allowance for the enormous investment opportunities in the field of housing.

The general magnitude of the potential outlays in the field of housing may be suggested by the following calculation. The average effective life of housing facilities may be taken as roughly 50 years. This means that in the course of the next 40 years the bulk of the existing housing structures should be replaced. During the same period it would be necessary to provide housing facilities for an increase of perhaps 55 millions of people. Such a program would involve average annual outlays of about 3.5 billion dollars. If we assume an improvement in the quality of housing facilities in line with a 75 per cent advance in the general plane of living, the annual expenditures for new housing would have to aggregate approximately 6 billion dollars a year—well over half of which might be expected to come from the money markets.

These estimates have been projected over a 40-year period in order to indicate the continuing character of our *needs* for capital growth if living standards are to be continuously raised. For convenience the figures have been given as annual averages for the entire period. In actual development the growth would doubtless be somewhat spasmodic in the future as it has been in the past—with the scale of operations gradually rising.

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[34] See discussion on p. 189.

In concluding this discussion, it should again be emphasized that the estimates given are in no sense forecasts of probabilities: they are solely estimates of requirements to achieve certain assumed goals with respect to production and living standards.

III. CAPITAL REQUIREMENTS IN RELATION TO THE MONEY MARKET

The preceding analysis has been focused upon physical capital requirements. Consideration must now be given to the implications of these requirements from the point of view of the financial markets. What would the carrying out of such an expansion program involve in the way of financial operations? Could it be financed in large part without resort to the so-called capital markets, or would it necessitate a resumption of security flotations on a large scale and heavy borrowings from commercial banking institutions?

It is readily apparent that extensive improvements of highways and streets, the creation of additional municipal utilities, and the construction of new and better housing facilities could not be financed without large borrowings from the financial markets. It is also evident that the present financial condition of the railroads is such as to make their rehabilitation dependent upon extensive security flotations. But in other major fields of capital expansion, such as industrial, commercial, and public utility enterprises, it is sometimes contended that further capital expansion can be financed largely from internal sources, and that in consequence outlets for investment funds in the future will be severely restricted.

The view that corporations are able to supply the bulk of their financial requirements without floating securities pervades thinking in high government circles. This point of view was repeatedly stressed in the hearings before the Temporary National Economic Committee both in the questions asked of witnesses and in the elaborate presentations of the committee's own statisticians. It was recently expounded by Marriner S. Eccles, chairman of the Board of Governors of the Federal Reserve System. Mr. Eccles' statement is as follows:

> From 1921 to 1930 the expenditures (for plant and equipment) averaged about $8,000,000,000 [annually]. Of that amount $1,639,000,000 was financed through new security issues. In other words, 20 per cent was financed by going to the markets through new offerings. . . . From 1931 to 1939 the average annual expenditures on plant and equipment amounted to $4,773,000,000. The average annual offering of new securities during this period was $332,000,000, or 6.7 per cent. This is evidence of the extent to which business is not depending upon capital markets. It is depending upon its own earnings and its own depreciation reserves for capital requirements.[35]

From these data, plus the fact that new municipal issues are at present virtually non-existent, Mr. Eccles concluded that a continuation of federal deficits is essential to provide outlets for investment money—as well as to create purchasing power and employment.

The conclusion drawn from these data is fundamentally misleading. Confusion of thought arises from the failure to differentiate between expenditures for the replacement of existing capital and outlays for capital expansion. Instead of looking to the investment market for *replacement* money it is the practice to set aside annually, through the medium of depreciation allowances, funds with which to replace plant and equipment as it wears out. Mr. Eccles mentions "depreciation reserves" but does not attempt to segregate funds available for *replacement* from earnings available for *expansion* purposes. Depreciation charges in the twenties averaged more than 5 billion dollars annually.[36] Thus some 5 billion dollars of the annual purchases of plant and equipment were presumably for replacement purposes. This leaves less than 3 billions for expenditures on *new capital construction*, of which, according to the figures cited by Mr. Eccles, 1,639 millions was financed with funds derived from security flotations. Not all of the balance was obtained from internal sources—for, as is well known, funds for capital expansion were also being provided through bank loans. The 4,773 million dollars of annual expenditures on plant and equipment during the thirties represents a sum which is less than normal outlays for replacement. The figures cited for the thirties thus indicate that the existing capital supply was not being fully maintained.[37]

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[35] See " 'Government Securities Outlook' Conference," *Savings Bank Journal*, March 1940, p. 63.

[36] Estimates of Simon Kuznets indicate that allowances for depreciation and depletion in the years 1925-30 average 5.3 billion dollars annually. See *Gross Capital Formation*, National Bureau of Economic Research Bulletin No. 52, p. 12.

Because of the vital significance of this issue, another illustration of the point of view will be given. Thomas C. Blaisdell, Jr., chief of the monopoly study, Securities and Exchange Commission, says:

> The commonly accepted notion that business enterprises *expand* plant and equipment by obtaining savings through the securities market is greatly exaggerated. Business enterprises rely upon the securities markets, that is, upon the savings of individuals, for only a small part of *new funds* which they *invest* in plant and equipment and their going businesses. . . . If these corporations do not get their funds for expansion from the public financial markets, where do they get them? Primarily from earnings, that is, from undistributed profits, depreciation, and depletion. For example, seven major automobile companies (having assets of $1.6 billions in 1938) spent $430 millions on plant and equipment during the years 1930 through 1938. They had $560 millions available from gross earnings. These companies were completely independent of the savings of individuals to finance their *investment* program. Eleven oil companies during the same period spent $2.1 billions for plant and equipment. They were able to finance 95 per cent of these expenditures from earnings.[38]

A similar point of view was expressed in the hearings before the Temporary National Economic Committee.[39]

Mr. Blaisdell, like Mr. Eccles, fails to see that funds derived from depreciation and depletion allowances do not constitute "new funds" or "savings" with which to "invest" in plant and equipment. If it were possible to show that income tax regulations with respect to the volume of depreciation allowances were overly liberal or that Treasury officials had been circumvented, with the result that depreciation allowances were greatly excessive, one could argue that depreciation had provided funds for the *expansion* of plant and equipment as distinguished from *replacement.* But these writers assume that *all* depreciation and depletion provides new money available for investment in capital expansion. The figures cited with respect to the "investment programs" of automobile and oil companies do not in fact necessarily relate to *investment* at all.

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[37] For further light on the situation during these years, see Chaps. VI-VIII.

[38] Italics supplied. Address before the Institute of Public Affairs, University of Virginia, July 10, 1939.

[39] Testimony on this subject before the TNEC is summarized by Stuart Chase in "Capital Not Wanted," *Harper's Magazine*, February 1940. Mr. Chase gives his complete endorsement to the point of view.

It is, of course, true that many individual companies have in the past financed expansion largely from undistributed earnings. The foregoing assertions, however, relate to corporations as a whole. The inference is that because of the post-war discovery or development of depreciation and depletion allowances and the surplus account, American corporations have practically freed themselves from reliance on the investment market. The truth is that there is nothing new or modern in financing replacements from depreciation allowances or new expansion from undistributed earnings. So far as depreciation is concerned, it is an elementary principle of accounting and business management that the existing plant and equipment must be continuously replaced in order to prevent the loss of capital investment. Comparisons between the volume of security flotations and *gross expenditures* for plant and equipment (which include outlays for both replacement and expansion) shed no light upon the ability of corporations to finance *capital expansion* without resort to the investment market.

It is true, however, that the replacement process may affect the amount of capital required to produce a given volume of output. When machinery of an obsolete type is replaced by more efficient instruments, we have the equivalent of more capital without any increase in dollar investment. The effects of technological progress upon the efficiency of capital instruments thus have a bearing upon the amount of new capital required to yield higher standards of living. Technological improvements must be clearly recognized as a significant factor in the capital market situation.[40]

But, as in the case of depreciation, we are not here concerned with any new phenomenon. Always, an increase in productivity and consequent rising standards of living are predicated upon increasing efficiency. With respect to recent trends all that can be said is that the rate of technological advance has been very rapid.[41]

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[40] For a detailed analysis of productivity in relation to investment, production, etc., during the last two decades, see Spurgeon Bell, *Productivity, Wages, and National Income,* The Brookings Institution (1940).

The analysis made in the three preceding chapters with reference to the dissipation of assets during the last decade and the present financial status of both large and small corporations indicated that even a moderate expansion program would require a considerable increase in the volume of security flotations, even on the part of large corporations. If we were to have the kind of reconstruction and expansion program outlined in foregoing sections of this chapter, the demands upon the investment market would be of vast proportions. The demands for short-term credits would be similarly increased—coming both from business corporations in need of increased amounts of working capital and from investment banking houses engaged in the underwriting and marketing of securities.

The potential outlets for investment funds in the future, moreover, lie in virtually the same fields as they did in the halcyon past. Transportation, electric light and power, industry and trade, and real estate and housing should continue to offer the largest opportunities for private enterprise and investment. State and local governments, and the federal government, may also provide important investment opportunities in enterprises of a productive and self-liquidating character.

In concluding this discussion, it should be carefully noted that the foregoing analysis has not been concerned with the question of "excess savings." That is to say, we have not been interested in determining whether potential investment demands are equal to the potential volume of money savings. We have been concerned only with the question whether American corporations are now in a position to provide the funds which would be required for expansion without resort to the money market. As was shown in *The Formation of Capital* there was an excess of aggregate money savings in the late twenties;[42] and, as shown in Chapter II of this volume the supply of available investment money in recent years has greatly exceeded the meager volume of new security flotations. Whether such a disparity continues will depend upon future trends affecting both sides of the savings and investment equation.

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[41] It is, however, easy to forget how rapid technological improvements have been in the past. See quotation from David A. Wells on pp. 193-94.

[42] See H. G. Moulton, *The Formation of Capital*, Chap. X.

IV. CAPITAL EXPANSION IN RELATION TO UNEMPLOYMENT

The conception that the United States has reached a stage of economic maturity and that further expansion in the field of private enterprise cannot be expected is naturally accompanied by the view that employment opportunities will henceforth be severely restricted. Indeed, because of the continued introduction of labor-saving machinery, it is argued that the volume of employment may be expected to contract rather than expand. It is concluded, therefore, that a constantly increasing percentage of the population must be supported either on relief rolls or be given employment in public enterprises of one kind or another. What bearing does the foregoing analysis of the capital requirements for higher standards of living throw on this great question?

The volume of employment that would be required in connection with the process of raising standards of living may be roughly indicated by means of a simple computation. The following estimate is based on an assumed population of 187 millions in 1980, having a standard of living roughly 75 per cent higher than that of 1929, involving an aggregate national income of 210 billion dollars.[43] How many workers would be required to produce 210 billions of national income?

The number of gainfully employed persons in the United States in 1929 was approximately 47 millions, or about 38 per cent of the total population of 123 million people. The value of the goods and services (national income) produced was approximately 82 billion dollars. If the ratio of gainfully employed to national income were the same in 1980 as in 1929, the number of laborers required to produce 210 billion dollars of income would be roughly 120 millions, or about 67 per cent of the 1980 population.

Allowance must, however, be made for the increased productivity of industry resulting from technological improvements. During the last two decades there has been a remarkable increase in industrial productivity, which means that there has been a progressive decrease in the number of "man-hours" of labor required to yield a given volume of product. Since 1929 the increase in output per man-hour in major divisions of industry has ranged from 25 per cent in manufacturing to as much as 80 per cent in electric light and power.[44] However, in some sections of the economy, notably in distribution, in services, and in governmental activities, there has been little change. Making allowances for the relative importance of the various industries and sectors of the economy, it appears that something like a 15 to 20 per cent general increase in productivity has occurred in the last ten years.

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[43] This is the so-called "liberal" standard referred to on p. 183.

To achieve in 1980 a standard of living 75 per cent higher than that of 1929 would of course require a 75 per cent increase in the *per capita* output of goods and services. If man-hour productivity should rise 75 per cent between 1929 and 1980, no greater percentage of the total population (assuming no change in working hours) would have to be employed than was the case in 1929, which would mean a total volume of employment of about 71 millions. In other words, the increase in man-hour productivity would make possible the higher standards of living without any increase in the *proportion* of the population that is employed.

Since 1929, however, the average length of the working week has been reduced from approximately 49 hours to around 40 hours. Assuming the average length of the working week in 1980 is 40 hours, the number of workers required to yield the standards of living assumed would be approximately 82 millions, or about 44 per cent of the total population. That is to say, with technological progress and man-hour output continuing to increase over the next 40 years at a very rapid rate, but with the length of the working week remaining at the present level, the percentage of the population that would have to be employed in order to produce 210 billions of national income would be materially greater than the percentage employed in 1929. The alternatives are a lengthening of the working week, or an increase in the percentage of the population that is employed.

Employment is thus inextricably connected with the process of obtaining higher standards of living. Increased man-hour productivity resulting from technological improvements provides the foundation for advancing standards of living. But if the aggregate number of hours of work is reduced as productivity increases, we merely maintain the status quo with respect to the output of goods and services. Meanwhile, however, workers have more "leisure"—either in the form of complete unemployment or more idle hours per week. As productivity increases, a corresponding increase in the volume of goods and services will be forthcoming only provided there is no reduction in the aggregate number of man-hours of employment. In other words, the employment problem will be solved as and when the forces and factors—public and private—which serve to impede the proper functioning of the economic system are discovered and eliminated.

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[44] For a detailed analysis, see Bell, *Productivity, Wages, and National Income.*

SUMMARY

The conception that this country has reached the stage of "economic maturity" and that there is no opportunity for further private capital expansion is the primary source of economic confusion today. It leads to the conclusion that the only possible solution to either the unemployment or investment problem is to be found in the expansion of government enterprise—regardless of costs or financial repercussions—and this in turn leads to deep-seated concern with respect to the future stability of private enterprise. Analysis of the capital and employment requirements for achieving progressively higher standards of living for the people of the United States clearly reveals the fallacy involved in the prevailing assumption that there is no further significant field of opportunity for private capital enterprise.

The present confusion is reminiscent of that of the middle eighties, when a period of acute depression led eminent observers to conclude that we had then reached a stage of industrial maturity, that the period of rapid growth lay behind us, that productive capacity had outstripped consuming capacity, and that industrial progress in the years ahead would be slow and halting as compared with what had gone before. This chapter may well be concluded with two quotations from the literature of that period.

> The results of the improvements in production and distribution . . . have been made especially effective within the last quarter of a century.

> A given amount of labour, operating through machinery, produces or distributes at least a third more product on the average, in given time, than ever before. . . . In this way only is it possible to account for the circumstance that the supply of the great articles and instrumentalities of the world's use and commerce has increased, during the last 10 or 15 years, in a far greater ratio than the contemporaneous increase in the world's population, or of its immediate consuming capacity.[45]

> The rapid development and adaptation of machinery have brought what is commonly called "over-production". . . . The nations of the world have overstocked themselves with machinery and manufacturing plants far in excess of the wants of production. . . . The day of large profits is probably past.[46]

The conception that the United States has now reached a stage of "economic maturity" implies—as it did 60 years ago—that little if any further expansion of productive capacity is necessary to provide for the wants of the people. Economic analysis affords no support for such a conclusion. On the contrary, a vast expansion of productive capacity is essential if we are to achieve the standards of living which the American people evidently desire.

The view that American corporations are in a position to finance capital expansion largely from internal sources—without resort to the capital markets—is based on misinterpretation of accounting and statistical information and cannot be supported by tangible evidence. If we should have a great period of reconstruction and expansion the demands upon the financial markets would be of a magnitude comparable to those of any period in the past.

The belief that employment opportunities in the future are more likely to contract than to expand, and that hence unemployment will inevitably continue on at least the present scale, fails to comprehend the work requirements involved in increasing the aggregate national income. Economic analysis indicates that expansion of employment is an indispensable accompaniment of the process of raising living standards.

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[45] David A. Wells, "The Great Depression of Trade," *Contemporary Review*, September 1887, p. 382.

[46] Carroll D. Wright, *First Annual Report of Commissioner of Labor* (1886).

PART II

GOVERNMENT POLICIES AND PRIVATE CAPITAL EXPANSION

INTRODUCTORY STATEMENT

The analysis of the preceding chapter gave an affirmative answer to the question: Is further private capital expansion *possible?* Whether the potentialities will actually eventuate is of course another question. The resumption of capital expansion on a large scale will depend upon the maintenance of conditions favorable to the spirit of private enterprise, and also upon the administration of the economic system in such a way as to foster and sustain the continuous expansion of production. Thus a wide range of policies, both public and private, is involved. Moreover, economic developments in the United States will continue to be dependent in considerable measure upon the re-establishment of international peace and world economic and political stability.

This study does not undertake to discuss all phases of the complex problem of re-establishing the flow of funds into new capital enterprise. International complications will be omitted from consideration as will also business and labor policies. This second division of the investigation, as the title indicates, will be focused upon such government policies as have a fairly direct relationship to the investment process.

The first section, including Chapters X to XII, is concerned with the regulation of the flotation of securities by federal and state governments. Inasmuch as the soundness and the efficacy of the regulatory methods can be appraised only in the light of a thorough understanding of the several steps involved in the marketing of securities, the first chapter is devoted to a functional analysis of the investment banking mechanism.

The second task is to analyze the existing system of taxation in relation to investment. Does it serve to impede private capital enterprise and, if so, what modifications would seem to be desirable?

Finally, it is necessary to consider the effects of national fiscal policies and the development of government credit agencies upon private enterprise, particularly upon long-term investment.

CHAPTER X

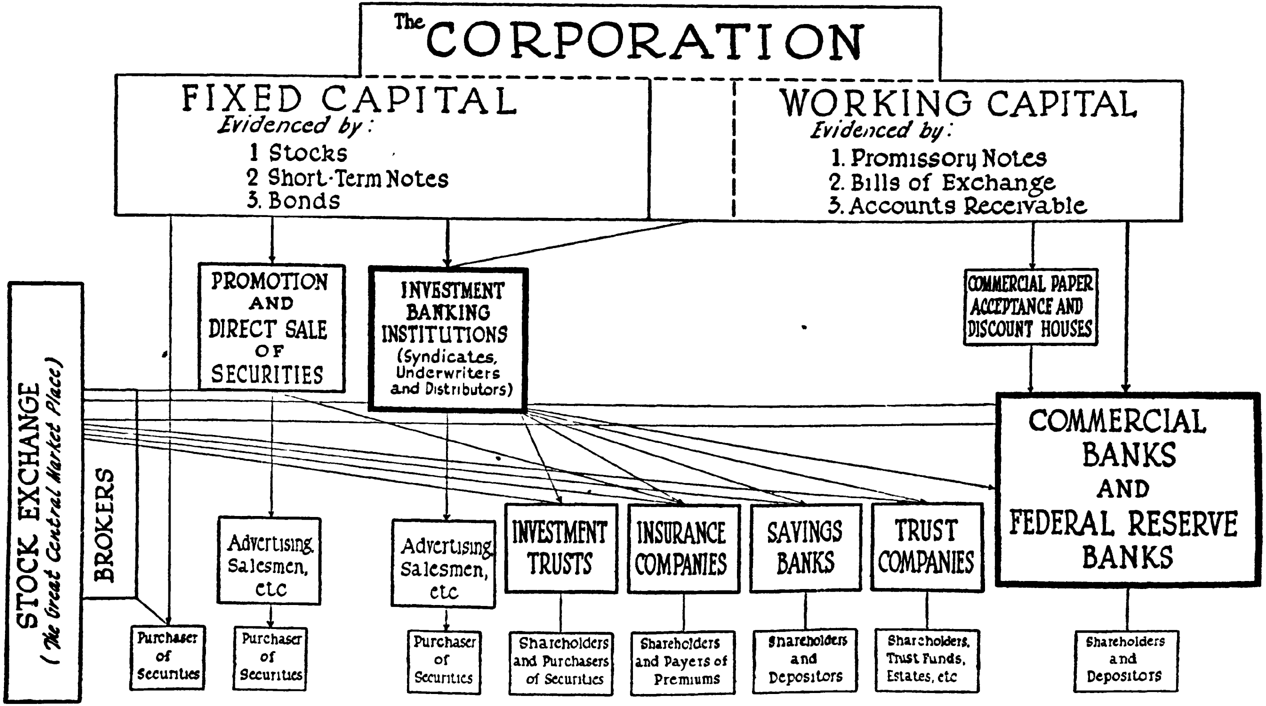
INVESTMENT BANKING AND THE ECONOMIC SYSTEM

The development of large-scale business enterprise required the mobilization of vast funds for both fixed and working capital purposes. The financial requirements of large business organizations, particularly of the corporate form, necessitated the organization of various types of financial institutions. These institutions include commercial banks; commercial paper, acceptance, and discount houses; trust companies; savings banks; insurance companies; investment trusts; investment banking houses; and the stock exchange and its affiliated agencies. Taken together, these institutions constitute an interrelated financial system.

The operation of the economic system as a whole is dependent upon the functions performed by these various institutions separately and collectively. We present on page 199 a diagram which indicates the place of these various institutions in the raising of working and fixed capital for corporate enterprise. It should first be noted that the financial mechanism as a whole involves the assembling of funds from the individual savers indicated at the bottom of the diagram and their transfer through financial institutions to the borrowing corporation shown at the top of the diagram. The arrows pointing downward are intended to indicate that the various types of financial instruments issued by corporations are transferred to those who furnish the funds. In some cases these instruments remain in the possession of financial institutions, while in other cases they are passed all the way through to ultimate investors.

The stock exchange has been placed at one side of the diagram in order to indicate that it is seldom a direct intermediary in the marketing of securities. Rather it is a great central market place, of which use is made by nearly all of the various types of financial institutions in connection with their operations, and also by the

INSTITUTIONS UTILIZED IN FINANCING CORPORATE ENTERPRISE


The CORPORATION
FIXED CAPITAL
Evidenced by:
1 Stocks
2 Short-Term Notes
3. Bonds
WORKING CAPITAL
Evidenced by:
1. Promissory Notes
2. Bills of Exchange
3. Accounts Receivable
PROMOTION AND DIRECT SALE OF SECURITIES
INVESTMENT BANKING INSTITUTIONS (Syndicates, Underwriters and Distributors)
COMMERCIAL PAPER ACCEPTANCE AND DISCOUNT HOUSES
COMMERCIAL BANKS AND FEDERAL RESERVE BANKS
STOCK EXCHANGE
(The Great Central Market Place)
BROKERS
Advertising, Salesmen, etc
Advertising, Salesmen, etc
INVESTMENT TRUSTS
INSURANCE COMPANIES
SAVINGS BANKS
TRUST COMPANIES
Purchaser of Securities
Purchaser of Securities
Purchaser of Securities
Shareholders and Purchasers of Securities
Shareholders and Payers of Premiums
Shareholders and Depositors
Shareholders, Trust Funds, Estates, etc
Shareholders and Depositors

ultimate investors in securities in the repurchase and sale of outstanding securities.

The investment banking mechanism with which we are here concerned is primarily associated with the raising of fixed capital through the flotation of securities—though as the diagram indicates working capital is also raised by means of securities. The placement of security issues with investors and financial institutions is accomplished in part by direct sale, and in part through the aid of investment banking houses. The direct process has commonly involved advertising and personal solicitation of a large number of individual and institutional investors, carried out either by promoters or by the corporation itself; but it is also accomplished through direct placement by the corporations of the whole or the greater part of an issue with large institutional or individual investors. The indirect process involves the intermediation of organized investment banking institutions. Such intermediators are not mere brokers: as we shall see, they assume the risks involved in the ultimate distribution of securities.

The stock exchange is to be differentiated from these intermediary institutions in that it is not directly concerned with the sale of new issues: its function is to provide a market place for issues that have previously been floated. Since the analysis in this volume is concerned with the factors involved in the raising of new capital, it is unnecessary to give consideration to the operation and regulation of the stock exchange. Our analysis wil be focused upon the operation and regulation of the investment banking mechanism.

The investment banking mechanism developed in response to private incentives and initiatives. The huge financial requirements of governments and corporations offered an opportunity for the rendering of a service which would be rewarded with profits and led to the organization of investment houses. The service thus rendered was indispensable to the economic development of the United States.

Until recently there was no government supervision of investment banking. It became apparent in due course, however, that some measure of government control was essential to prevent abuses. In the early decades of the present century there was a growth of government regulation of security issues on the part of both federal and state governments; but it was not until after the financial losses of the great depression that a far-reaching system of government supervision—comparable with that in the field of commercial banking—was developed. We now have not only improved state regulation of the investment banking mechanism but also a federal system of regulation under various statutes, particularly the Securities Act administered by the Securities and Exchange Commission.

In order to appraise the significance of the present regulatory system and its relation to the flow of funds into new capital development, the first essential is to gain a precise knowledge of the investment banking system as it exists today. Accordingly, our discussion must be divided into two parts. The present chapter will be devoted to an analysis of the functioning of the investment banking mechanism, together with some of its current problems. The chapter which follows will discuss the nature and the effects of the present system of government regulation.

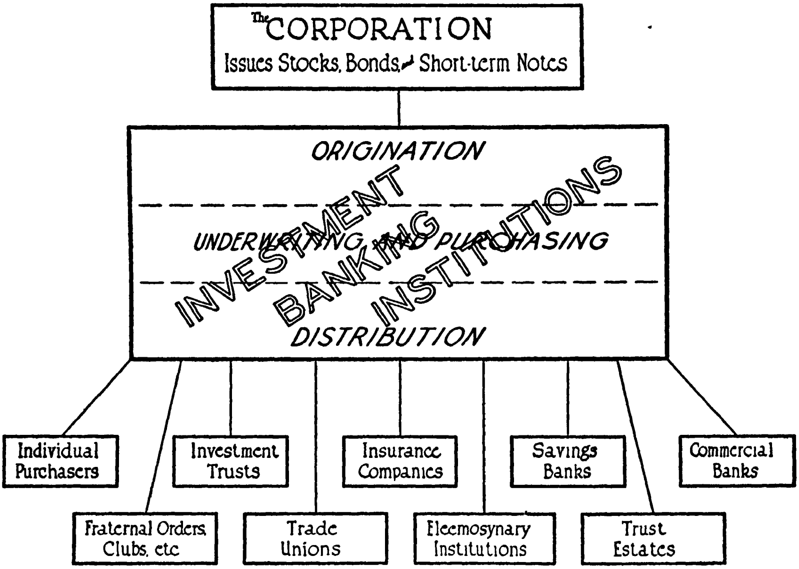
A close analysis of the functions performed by the investment banking system and the problems which have arisen in connection with its operation is indispensable to an understanding of the problem of regulation. The fact is that the general confusion of thought which prevails both among investment bankers and officials with reference to the functions of investment banking has been responsible for serious defects in the development and administration of the regulatory system.

We shall first describe briefly the investment banking system as a whole. Then we shall analyze the several distinct functions of originating, underwriting and purchasing, and distributing securities. Following this functional analysis we shall consider: the growing tendency to place securities privately, that is, without an offering to the general public; the special problems with which the small investment house is confronted; and the adequacy of investment banking resources.

I. A GENERAL VIEW OF THE INVESTMENT BANKING MECHANISM

The investment banker serves as a middleman between the issuers of securities, including both corporations and governments, and the investors in securities, comprising both individuals and institutions. In carrying out this intermediary service the investment banker performs three distinct functions: (1) origination; (2) underwriting and purchasing; and (3) distribution.

FUNCTIONAL DIAGRAM OF INVESTMENT BANKING OPERATIONS


The CORPORATION
Issues Stocks, Bonds, & Short-term Notes
ORIGINATION
UNDERWRITING AND PURCHASING
DISTRIBUTION
INVESTMENT BANKING INSTITUTIONS
Individual Purchasers
Investment Trusts
Insurance Companies
Savings Banks
Commercial Banks
Fraternal Orders Clubs, etc
Trade Unions
Eleemosynary Institutions
Trust Estates

Origination includes the subsidiary operations of discovery, investigation, and negotiation. Discovery is the finding of a prospective issue of securities; investigation is the testing of the investment credit of the prospective security issuer, and the intrinsic soundness of the issue; negotiation is the determination of the amount, the price, and the terms of the proposed issue. *Underwriting* and *purchasing* involve financial commitments to the issuing corporation that it will receive a stipulated amount of proceeds on a given date regardless of market trends. Underwriting proper is a contingent commitment akin to insurance, while purchase is an outright commitment. The circumstances under which underwriting is employed will be discussed presently. *Distribution* is the selling of an issue to ultimate investors or speculators. It may include the subsidiary operation of stabilizing the price of the issue. The diagram on page 202 may help to clarify this functional analysis of the investment banking mechanism.

To carry on these operations, various classes of investment banking institutions have been developed. The two or three largest houses, often called "wholesalers," perform only the function of purchasing and underwriting and do not engage in distributing securities. Practically all houses are both "wholesalers" and "retailers"—that is, they engage both in purchasing and underwriting and also in distributing securities. In the main, the chief business of the smaller houses is distribution. In performing these various functions the houses at times operate singly but in most cases they work in groups known as syndicates. Small houses at times act alone in the flotation of a local issue.[1]

II. ORIGINATION OF AN ISSUE

In this section we shall present first a description of the various operations involved in origination, namely, *discovery*, *investigation*, and *negotiation*. This description will be followed by a critical analysis of some of the leading problems which have arisen in recent years in connection with the carrying out of these operations.

1. *Discovery*. The initiative in connection with a new issue may lie with the issuing corporation or with the investment house. Sometimes, also, the initiative may lie with a commercial bank or some other intermediary. A commercial bank, noting that a corporate customer has a large volume of short-term liabilities, may suggest that this debt be funded by means of a long-term bond issue, and may introduce its customer to an investment banker with whom it is acquainted. In the financing of a foreign government or foreign corporation an intermediary, technically known as a "finder," occasionally brings the proposition to the attention of the investment banker and receives a fee for this service. In most cases, however, the approach is made directly by the corporation to an investment banking house, without the service of any intermediary.

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[1] A study conducted by the Investment Bankers Association of America shows that 49 per cent of its membership acted as underwriters of corporate securities, and that 71 per cent participated in national selling groups. *Investment Banking*, Mar. 23, 1938, p. 118.

On the other hand, the investment house may take the initiative in suggesting flotations. A house which acts as general financial adviser to a corporation may call its attention to the advisability of a new issue in order to improve its capital structure or to take advantage of a favorable market for new securities. Some of the more aggressive investment houses have new business departments which are always searching for prospective issues. A corporation which has no continuous relation with a particular investment house may consult with a number of houses for the purpose of ascertaining the conditions of the market for its issues.

2. *Investigation.* The next step in the purchase of an issue is the investigation or the testing of the credit of the issuer. The investigation usually involves an analysis of the financial history of the corporation by accountants, a survey of its physical property by engineers, a review of the legal aspects of the transaction by a law firm, and often a survey of the nature of the industry and its markets.

The investigation operation is of paramount significance in the functioning of the economic system. Upon the thoroughness of the investigation and the soundness of the judgment used in the analysis depend the ultimate safety of investments and also the wisdom with which the flow of capital is directed. The investment bank, in approving or rejecting proposed issues, exercises a direct control over the allocation of the financial resources of society. This is a serious social responsibility and should therefore be performed on a high professional plane.

3. *Negotiation.* If the investigation indicates that the credit of the corporation is sound and if market conditions are favorable to the prospective issue, the corporation and the investment bank then enter upon the negotiation of the price and the terms of the issue. These provisions are finally incorporated in purchase and underwriting agreements.

In addition to discovering and investigating an issue and negotiating the price and the terms on which the issue will be marketed, the originating house also as a rule organizes and manages the purchasing or underwriting syndicate and also the distributing group. In other words, it assumes responsibility for the management of the entire process of security flotation. The managing house is accordingly entitled to a managerial fee, which is distinct from that received by the other houses that join in purchasing and underwriting or in distributing an issue. There have been a few houses which operate almost exclusively in this originating and managing field. However, any house may originate an issue. It should be noted also that in the case of small issues the originating house may assume all of the functions without sharing the project with other houses either as to purchasing and underwriting or distribution.

There are two technical aspects connected with negotiation, namely, the use of the "market-out" clause and, more important, the method of negotiation. Under the market-out clause, which is found in most purchase agreements, the investment bank is permitted to terminate the commitment and withdraw from it in the event of certain contingencies, such as a substantial change in the internal position of the issuer or in the external political, economic, or market conditions.[2] In recent years agreements have sometimes included a market-out clause which has broadened the scope of the contingencies permitting the negotiating bank to terminate its obligations. Certain market-out clauses permit the bank to terminate the commitment only up to the time of offering the issue to the public, while in extreme cases the clause may be availed of even after public offering and until the date of the payment of the proceeds of the issue to the corporation.

In general, the purpose of such a hedge clause is to safeguard the negotiating bank against conditions which are not reasonably measurable at the time of the contract, are beyond its control, would impair the market for the issue, would prevent its satisfactory distribution, and would bring serious loss to the bank placing the security. Such conditions arose in the fall of 1937 when the sharp decline in domestic security prices halted the distribution of new issues. Similarly, the international political complications of September 1938 seriously impeded the marketing of new issues. Investment banking houses, conscious less of their legal rights and more of their moral responsibilities to the issuers, avail themselves of the market-out clause only in rare cases.

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[2] Paul P. Gourrich, "Investment Banking Methods," Pt. I, *Law and Contemporary Problems*, January 1937, p. 56.

It is obvious that the market-out clause lessens the binding force of banking commitments. It seems clear that contracts should be drawn so that the bank has the option of withdrawing only in the event of war or a closing of the security markets as a matter of national policy. The clause should not be permitted to apply to mere changes in market conditions.

The method of negotiation is the really important problem. There has been much controversy over the question whether the system of negotiation should be one of open competition or private negotiation. It should be made clear at this place that a non-competitive relationship between a corporation and an investment house may exist in connection with a single issue, and yet not imply a permanent relationship for all issues.

There is a place for both the private and the competitive system of negotiation. The private or *non-competitive* method of negotiation presents certain advantages to the issuing corporation. Since the investment house over the years becomes thoroughly acquainted with the financial and economic position of the corporation, the house is able to help formulate a long-range financial plan as well as to offer constructive advice with respect to immediate issues —whether to raise funds by stocks or by bonds, by long or by short maturities, or by secured or unsecured obligations. Moreover, since the investment house is not under competitive pressure, it is in a better position to time the bringing out of an issue so that it would have the most favorable reception by the investing public. If the service of an investment house proves unsatisfactory, the issuing corporation would of course shift to another investment house. The relationship would be analogous to that existing between the corporation and its legal or its accounting firm. The corporation would make a careful selection of the investment house and continue the relationship so long as the service was satisfactory.

The *non-competitive* system may, however, sometimes work to the disadvantage of the issuer. Funds may be obtained on less favorable conditions with respect to both price and terms than may be had under competition. A continuous financial relationship with the same banking house may, in the course of time, give the house an extensive influence over the financial policies of the issuer. The investment banker may acquire stock interest in the corporation and representation on the board of directors, and such representation may be used as a means of business promotion to insure the acquisition of future issues. However, such stock ownership and representation is today the exception and not the rule, and most privately negotiated issues are the result of voluntary action by the issuers. In the past, issuers occasionally bound themselves by financial contracts requiring the private negotiation of their securities with a particular house. Such contracts are now seldom found; today corporations, with occasional exceptions, are not bound either by stock ownership or by contract to the private negotiation of their issues by a particular investment house.

The *non-competitive* system has certain advantages for the investors as well as for the issuing corporation. When an investment house sells the securities of a particular corporation continually, the house becomes closely identified with the corporation and thus assumes something of a moral responsibility for the soundness of the securities issued. In order to maintain its reputation with the investing public, the investment house finds it desirable to include in the terms of the issue provisions intended to safeguard the interests of the investor.

The *competitive* system likewise presents certain advantages to the issuer.[3] By offering its securities not to one house but to a number of competing houses, the issuing corporation may obtain its financing on more favorable conditions as to price and terms. Again, the competitive relationship may free the management from dependence on one house, and thereby eliminate the possibility of banker control.

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[3] The competitive system is used in the sale of municipal securities, of railroad equipment trusts, and of public utility securities in certain states. (See pp. 262, 267n.) The federal government has not followed a consistent policy regarding competitive bidding. On the one hand, officials have severely criticized private negotiation. Thus Joseph Kennedy, former chairman of the Securities and Exchange Commission, has stated that such a close relationship has resulted in "excessive financing, excessive underwriting charges, excessive bonuses, improper loans and a host of other evils." (Quoted by William O. Douglas in speech reported in *Railway Age*, Vol. 102, Apr. 10, 1937, p. 641.) Former Commissioner Douglas also stated that "the economic utility of continuity of banking relationships is of unestablished value to anyone except the banker." (The same, p. 642.) On the other hand, agencies of the federal government have sold securities by private negotiation as well as by competitive bidding.

On the other hand, the *competitive* system presents possible disadvantages to the issuer. Where the securities of the issuing corporation are sold now to one banking house and then to another, the banker is less able to obtain an understanding of the financial status of the corporation than the house which continuously handles the financing of the company. Moreover, under the competitive arrangement the issuer is usually not free to select its investment banker, and must in most cases accept the service of the highest bidder. As in all professional services, there is a wide difference in character and quality, and the banker offering the highest bid may not possess the character and quality which the issuing corporation may desire. Moreover, in the intensity of competitive bidding, the issue may be overpriced. It is true that the issuing corporation may derive a temporary advantage in receiving its funds at a somewhat lower cost, but in the long run the overpricing of the issue and the resulting creation of ill will with the investing public may jeopardize the reception of its future issues.

The choice between a competitive and non-competitive relationship depends upon such factors as the credit position of the issuer, the amount and the terms of the issue, and the state of the capital market. In general, where the credit position of the issuer is not easily determined, where the issue is large in amount, and where the terms are not standardized but complicated, a continuous relationship is preferable.

The relative advantages of the two systems to the issuer depend largely on the condition of the capital market. In a strong market, with rising security prices and new issues easily absorbed, the competitive bankers would be inclined to cut their charges. However, in a weak capital market, with falling security prices and issues poorly received, competing investment bankers would be inclined to increase their charges in order to cover the greater risks involved or would withdraw their bids entirely.

III. UNDERWRITING AND PURCHASING

Underwriting and purchasing operations require very close analysis. The term underwriting carries a variety of connotations which have given rise to some of the most controversial issues in public regulation.[4] It is sometimes loosely employed to cover investment banking as a whole—investment houses being referred to as "underwriters." Similarly, one frequently hears the expression "underwriting" employed to cover all of the three operations of purchasing, underwriting, and distributing. Again, underwriting is used as though it were identical with the purchasing operation; while on other occasions, it is used synonymously with distribution.

As an illustration of the loose terminology employed by the investment banking fraternity itself, a citation may be made from the Code of Fair Competition for Investment Bankers, which reads as follows:

> The term "investment banking business" shall mean the business of underwriting or distributing issues of securities, or of purchasing securities and offering the same for sale as a dealer therein, or of purchasing and selling securities upon the order and for the account of others.

It will be seen, first, that underwriting and distributing are used synonymously; and, second, that underwriting is regarded as an alternative expression to purchasing.

The prevailing confusion arises from the fact that the distinct functions of originating, underwriting, and distributing are so frequently conducted in the United States by a single institution. That is to say, a given house may originate an issue, assume the underwriting and purchase, in whole or in part, and also participate in the distribution of the issue. Again, a house may perform two of the functions only: it may originate and underwrite without selling the securities; or it may participate in the underwriting and in the distribution without having been involved in the origination. Thus the functional lines have been greatly blurred in actual investment banking practice.

The essence of underwriting is the assumption of risk by making a contingent commitment. That is to say, underwriters agree that in case the sale of securities does not prove successful they will take over the unsold portion, thereby insuring the issuing corporation that it will receive the full amount agreed upon at the specified time.

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[4] The confusion existing in the law relating to underwriting will be considered later. See p. 248.

Those who participated in such pure underwriting may or may not be participants in the actual distribution of the securities. Indeed, the underwriting group may include financial institutions which are not engaged in investment banking—such as investment trusts, and (formerly) commercial banks. In England individuals also frequently participate in the underwriting. The investment banks which share in the underwriting are usually also interested in the actual distribution of securities; but the amount of their underwriting participation may be greater than the extent of their participation in distribution.

The historical explanation of the appearance of pure underwriting is to be found in the very large risks which formerly attached to the flotation of securities. After the Civil War the volume of new flotations was frequently so large relatively to the supply of available investment funds that there was real possibility that issues could not be promptly absorbed by the investing public—even though they were of high quality. Hence, in order to make good on the guarantee to the issuing corporation that the funds would be provided in full on a given date, it was essential for the originating house to invite additional investment banking houses and also other institutions to help share the risk. The assumption of risk thus emerged as an operation distinct from origination and from distribution; and there was thus no reason why it should not be participated in by others than the investment bankers themselves.

The function of pure underwriting may be illustrated by a common practice in the United States in the twenties. After a project had been developed and the terms of the flotation agreed upon, there was organized what was called a "banking syndicate"—which was an intermediate group between the purchasing and the selling group. This syndicate agreed to absorb any portion of the issue left unsold at the end of the stipulated time period.

The condition of the money market in recent years has lessened the importance of the pure underwriting function. Beginning in the decade of the twenties, the volume of investment funds tended to outrun the supply of high-grade issues; hence the risks in marketing properly priced issues of good quality became negligible. Under these conditions underwriting in the United States disappeared in substantial degree as a separate operation, being merged in the outright purchase by a single house, or group of houses joined together in a syndicate. Since the marketing risks were usually slight, an originating house, or group of houses, could assume the entire risk outright, without calling upon a contingent underwriting group. In the parlance of "the street," and in legal usage, however, this outright purchase has been commonly referred to as underwriting.

Pure underwriting has, however, continued to be employed in some instances. It is often used when a well-established corporation with securities already outstanding seeks to raise additional capital by the sale of stock to its own shareholders, who generally have a privileged right to subscriptions. There is always the possibility, however, that such subscriptions may not be sufficient to absorb all of the issue. To provide for such a contingency, a syndicate of investment houses is asked by the corporation to underwrite the issue, that is, to take up at the expiration of the subscription period whatever portion of the issue has not been absorbed by the company's shareholders. Two different bases are used in determining the compensation. The company may pay a blanket commission on the whole issue, irrespective of the outcome of the sale to stockholders. Or the commission may be divided into two parts: one part being a small commission on the entire issue, usually termed an *overwriting* fee; and the second part, termed the *underwriting* fee, being a larger rate on that portion of the issue which the bankers must actually take over.

A second illustration of pure underwriting today is found in the participation of investment trusts as sub-underwriters in the market. After an originating house and a group of associated *principal underwriters* have purchased an issue, they sometimes enter into an agreement with a group of *sub-underwriters,* which may include investment trusts as well as other investment banking houses. The compensation to the sub-underwriter for the risk which he assumes may be either in the form of a commission or of a discount on the price of the issue. If the issue is successful, they obtain an underwriting commission to cover the risks which they have assumed; if the issue is unsuccessful, they take over their allotment—at the discount agreed upon.

In case of outright purchase the risks of the market are entirely absorbed by the purchasing house or houses. It is believed that the risks are too great to be carried by the issuing corporation. Such outright purchase is found both in connection with small issues handled by a single house and with large issues handled by syndicates.

The risks assumed by a purchaser or purchasing syndicate differ from pure underwriting by outside institutions in that the latter are underwriting the selling risks of a wholly distinct and separate group. That is to say, whereas the intent of the specialized underwriter is merely to insure market risks, the intent of the purchasing group is to see that the securities are sold either through their own selling organization or through dealers who are called in to participate in the marketing process.

The agreement made between the originating house for itself and also on behalf of the associated underwriters usually contains a statement showing the amount of the issue allotted to each underwriter, commission allowances, provision for the formation of a selling group, for stabilization operations, and for the termination of the agreement. While tentative terms are usually discussed by the originating house with the issuing corporation over a considerable period of time, the definitive signing of the purchase contracts usually does not take place until the issue is about to be floated.

The contractual obligations may be summarized as follows. Both the originating house and the associated underwriters are responsible to the issuing corporation, each to the extent of its own commitment. When sub-underwriters are utilized they are presumably obligated only to the principal underwriters with whom their contracts have been made.

Liability to the ultimate purchasers of securities is a wholly different matter. The question here is not the nature of the obligation to the issuing corporation but the nature of the obligation to potential investors. This involves consideration of the adequacy and reliability of the information furnished in the prospectus and registration statement. In principle, it seems clear that the party which should be responsible to the public is that party which is in a position to assume and exercise such responsibility. Discussion of the law and administrative rulings pertaining to this issue is reserved for the next chapter dealing with public regulation.

IV. DISTRIBUTION

The first step in the distribution of a large issue is the formation of a selling group. This task is undertaken by the originating house, which has complete discretion in the selection of the members of the selling group. It naturally includes such members of the purchasing groups as desire to participate in the selling, but it also includes a large number of retail dealers located throughout the country. The purpose of this large selling group is to effect a quick sale and a wide distribution among ultimate investors.

The members of the selling group today assume no underwriting risk. They merely endeavor to sell the block of securities which is offered to them on a firm basis. The manager first sends the members of the selling group a selling agreement stating the terms and conditions on which a new issue is to be sold. The distributors are advised by telegram of the amount of the securities reserved for purchase by them. These securities are reserved for a short period of time, at the end of which the distributors must state whether or not they agree to purchase part or all of the securities reserved for them. The distributor may apply for securities in excess of the amount reserved, and these requests are then received by the manager, subject to allotment. It is clear that up to this time the distributor may take or reject a block of the securities at his option.[5]

But after he has agreed to take a block at a firm price, he is bound to take the allotment. It is true that a distributor may not be able to sell all of the securities allotted him, and in this event he must carry them with his own funds. The risk thus assumed is, however, ordinarily not great because the distributor has an opportunity, before making his firm commitment, to sound out his customers and to know with reasonable certainty what volume of securities he can dispose of. At the last moment, as we have seen, he is permitted to take less than the amount that has been reserved for him. In this event, the manager of the selling group may transfer the balance to other distributors who have asked for increased allotments. In the event that the total volume of securities taken is less than the amount of the offering, the original purchasers of course must do the carrying.

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[5] A distributor who follows the practice of continuously rejecting issues offered to him may, as a result, find himself eliminated from future selling groups. In the twenties, distributors were frequently under pressure to take doubtful issues along with good ones. But such pressure has been applied to a much less degree in recent years.

While it is clear from this statement of the practice that the distributor assumes some risk, it does not follow that it is an underwriting risk. He merely assumes the ordinary merchandising risk: he has bought goods which he feels reasonably sure he can sell promptly; if his judgment is wrong, he may have to carry them for some time and in the end may possibly have to sell them at a reduced price. This process differs from either underwriting or sub-underwriting in that he has bought the securities outright with the intent of selling them to his own customers, and he has not assumed the *contingent* obligation which is the essence of underwriting.

A stabilization procedure has been developed to limit price fluctuations during the distribution period. Since the process of distributing securities to investors may take considerable time, there is always the possibility that market conditions may change before the issue has been absorbed. In order to exercise some control over this situation the managing house is authorized by the underwriting group to stabilize the market through buying or selling operations.

The determination of the price at which an issue is to be offered involves a number of imponderable elements. The investment banker makes every effort to fix the authorized or public offering price so that at the termination of the public offering the market price will be close to the offering price and preferably somewhat above it. Although the managing house makes every effort to fix the authorized price of an issue as close as possible to the prospective market price, these two prices may not coincide.

The cause of the margin between the two prices may be either financial or technical in nature. The underlying financial cause is the misjudgment of the prospective market value of the issue. The overpricing or the underpricing of an issue may be caused by general fluctuations in the security markets, by changes in the situation of the industry of which the issuing corporation is a part, or by changes in the status of the corporation itself. The technical cause of a margin between offering price and market price is manipulation of the market either by members of the purchasing or selling syndicates or by outside traders.

Stabilization of the market is attempted by means of what are known as trading accounts. A *trading account* is generally provided for in the agreement between the purchasing houses and the syndicate manager. Under its terms the latter is given the right, at his discretion, either to buy or sell, go long or short, over-allot or under-allot securities. As a rule, the amount of such transactions is limited to 10 per cent of the issue, but in recent years the account has seldom approached this limit. An analysis of a number of actual cases indicates an average position of only about 2.25 per cent and in some cases as low as 1.77 per cent of the issue.[6]

The use of the trading account constitutes one of the most controversial problems in the operation of investment banking. While it is difficult to draw a clean-cut line for purposes of regulation, it is nevertheless possible to differentiate in principle between unsound and sound stabilization. If, as a result of the misjudgment of the true investment value of an issue, the syndicate has failed to anticipate the influence of the various factors governing the market price of the issue, the offering price does not therefore represent the true investment value. Stabilization, then, results in nothing more than the creation of an artificial, rigged, manipulative price which seeks to cover the unloading of an overpriced issue upon the investing public. Unquestionably such operations are unsound and should not be permitted. In the decade of the twenties stabilization operations, particularly in foreign securities, were frequently unsound, for they often arose simply because of the highly competitive conditions which led to the overpricing of new issues.

On the other hand, if the offering price represents approximately the true investment value, stabilization operations for the purpose of overcoming temporary market influences may be justified. Securities offered for sale by weak or speculative holders may be purchased at a fixed price at or close to the offering price. Similarly, the syndicate manager may attempt to prevent too great a speculative rise by selling at a price close to the issue price. Such operations are needed in order to maintain an orderly secondary market until the issue is placed with permanent holders.[7]

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[6] These figures were derived from replies to a questionnaire sent to investment houses.

The Securities Act of 1933 gives the Commission authority to regulate the practice of stabilization. Under this power the Commission has ruled that certain stabilizing operations may be legal, but that "activities designed substantially to raise or lower stock exchange prices are clearly manipulative," and therefore illegal.[8]

In recent years consideration has been given to the possibility of segregating investment banking functions. The proposal is based on the general financial principle that banking operations of all kinds should be specialized. Specifically, it has been urged that the underwriter should act solely as a pure risk taker, or shock absorber, in the flotation of new issues, and that in consequence his commission should be merely compensation for the risk of carrying unsold securities. The emphasis here is upon the divorcement of the underwriter from the originating house and the purchasing group.

It has been argued that neither the original purchasers nor those who participate in specialized underwriting should engage in the distribution of securities. The objection is that the effort to make profits from the several operations leads to a conflict of objectives. The desire to keep a sales force busy may lead an investment house to purchase an issue which it would otherwise be unwilling to bring out. Similarly, it has been maintained that if a retail dealer participates in a purchasing or underwriting syndicate and also engages in selling, he loses the detached position which he should occupy if he is to give impartial counsel to his customers.

In view of the way in which the investment banking system of this country has developed, it seems clearly impractical to introduce a segregated system. In Great Britain, as has already been noted, there is a high degree of specialization. Not only is the underwriting handled largely by houses that are not engaged in the origination of securities, but the distribution function is conducted chiefly by local brokers throughout the country who serve as investment counselors, so to speak, to small groups of investing clients. To make such a system applicable to the United States would require a reversal of established investment habits and practices and trends in the development of the machinery of distribution.

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[7] An analogous operation is the readjustment of holdings within the syndicate by buying back securities from members who are overstocked and selling them to those who can dispose of more than their original allotments. Such a practice may prevent a break in price as a result of distress selling by syndicate members.

[8] Release No. 748, Apr. 17, 1936, under Securities Act of 1933.

In the first place, the development of the system of outright purchase by investment houses has tended, as we have seen, toward the elimination of underwriting as a specialized function. The investment house which participates in the purchase of an issue, it will be recalled, is making an outright, rather than a contingent, commitment. In popular thinking the purchasing operation may still be regarded as underwriting; but in any case the commission received is looked upon as a return for a single service rather than for the performance of two separate operations.

It is believed by many observers that segregation would so seriously affect earnings that it would eliminate many of the small interior houses which operate on a narrow margin of profit. Moreover, outside the larger financial centers the placement of small, local, inactive issues must, as a practical matter, be both purchased and sold by the same banking house. This combination of operations is made necessary in view of the fact that in many localities investment banking capital comes only from the local distributor which acts as an occasional purchaser of new issues. Moreover, local securities can only be distributed by a selling organization which has previously originated and purchased an issue and which therefore knows the merits of the security. There is no doubt that the segregation of the functions would seriously interfere with the distribution of the securities of small issuers.

V. PRIVATE OFFERINGS

The foregoing analysis of the investment banking mechanism has related to public flotation of securities in the open market. It is necessary now to point out that much capital is raised without the use of the investment bank, securities being sold directly to investors. Such direct offering, or placement, as it is colloquially called, is resorted to both by unseasoned companies and by nationally known, well-established corporations. The problem must be considered here because of its bearing upon the whole system of public flotation.

Funds may be obtained in a local market by unseasoned companies through the sale of securities to a promotional group composed of a few business men who have faith in the probable success of the new enterprise, and who intend to hold the securities. New enterprises are usually forced to finance in this fashion because there is no other channel open to them. Investment houses of reputable standing usually avoid the issuance of securities of new corporations because of the speculative risk to which their customers would be subjected. As a result distribution of such securities often presents a difficult problem.

In 1937 a study was made by the Securities and Exchange Commission of registered securities not floated through investment houses but disposed of either directly or through contracts with the selling agents. It showed that only about 20 per cent of the estimated gross proceeds were realized in connection with such offerings. About one-third of such registrants reported no sales of the securities whatever; while the remaining two-thirds reported sales of approximately one-fourth of the amount registered.[9]

Private offerings have become a striking feature of the capital market in recent years. There has been a growing practice for nationally known, well-established corporations to sell bonds and note issues without the intervention of the investment banker and without a public offering. Such private placements have been highly specialized in nature; they have been made largely by public utility and some industrial corporations and placed mainly with the insurance companies. Such private placements first made their appearance on a substantial scale in 1934. The volume of private placements in relation to total corporate issues since 1934 is shown in the table on page 219.

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[9] *Third Annual Report of the Securities and Exchange Commission, 1937*, p. 12.

The percentage column understates the significance of private placements because the column showing *total offerings* includes stock issues which are not eligible investments for most of the large institutional purchasers. An unpublished study by an investment banking institution, which based its findings on public sources, estimates total private placements of bond and note issues from January 1, 1935 to December 31, 1939 at $2,527,000,000. The percentage of aggregate corporate domestic bond and note issues (including refundings) represented by private placements increased from an average of 11.5 per cent in 1935 and 1936 to 43.7 per cent in 1939.[10]

New Securities Privately Placed, 1935-39[a]

Year Ending June 30	Total Offerings for Cash (In millions of dollars)	Private Offerings (In millions of dollars)	*Private Offering as Percentage of Total Offerings*
1935	3,768	344	*9.13*
1936	11,265	458	*4.07*
1937	7,639	477	*6.24*
1938	3,484	410	*11.76*
1939	6,919	894	*12.92*

[a] *Fifth Annual Report of the Securities and Exchange Commission, 1939*, pp. 218-19. These figures include refunding issues.

A number of factors are responsible for the growth of private placement. In the first place, this method makes possible certain economies in direct expenses, such as legal, trustee, and banking fees, advertising, printing, and engraving costs, taxes, listing fees, and exemption notices. Such changes might, of course, be offset by more exacting terms on the part of those with whom the issues are placed, but it does not appear that such is usually the case. Our attention has, however, been called to instances in which private placement was more costly than public offering; but the issuing corporation still preferred private placement because of other advantages, now to be considered.

The second and most important explanation of private placement is the desire to circumvent the regulations imposed under the Securities Act. It obviates the delay, the liabilities, and the disclosures required under the act. Under direct placement the issuing corporation receives the proceeds with greater speed than under the system of floating securities through an investment house. An issuer observing the requirements of the Securities Act must carefully prepare the registration statement, a task which may require several months. This protracted period may give rise to many contingencies which may in the end even prevent the actual completion of the transaction. For example, the New York Telephone Company, after negotiating with one investment house for several weeks, in the end placed an issue privately rather than incur the risk of a public offering in an unsettled market. Similarly, the Commonwealth Edison Company decided to place an issue through private sale rather than public distribution because of the possibility of missing a favorable public market. Under private placement the directors and officers of the issuing corporation are relieved of the necessity of assuming the liabilities imposed by the Securities Act. Furthermore, they are not required to disclose the intimate details of their operations to the general public. These advantages are, of course, lost if the issue is later registered.

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[10] As pointed out in the study this total includes only reported private placements; it excludes all issues for aggregate amounts of less than $1,000,000, and all railroad, railroad equipment, municipal, and other governmental issues. There is known to be a substantial volume of unreported issues.

The flexibility of the indenture under private placement is a further advantage to the issuer. The terms of the indenture of an issue held by a large number of individual investors cannot readily be modified to meet changing conditions, even though they may call for only a minor technical alteration. Such changes can more easily be made when the issue is owned by a small group of institutional holders. In case drastic changes are necessary, they can more easily be made by a small group of institutional holders through private settlement than by a large number of individual investors through court procedure.

Private offerings also appeal to large institutional purchasers. This is particularly true of insurance companies, which in recent years have been encountering difficulty in finding satisfactory outlets for their surplus funds. This situation, as noted elsewhere, is the result of the current stagnation of the capital market.

The system of private offerings also presents certain disadvan-

tages. These concern the issuer, the purchaser, the investment banking system, and the public. We shall consider the problem from the point of view of each of these parties.

1. *The issuing corporation*. In some cases the terms of the privately placed issues have been more onerous than those which would have been imposed in a public offering with respect to the sinking fund, managerial restrictions, and retirement. The sinking fund requirements may be larger than in the case of public offerings. The purchase agreements may provide for the maintenance of large cash balances throughout the life of the bond, for a prohibition on dividend payments in the event that those cash balances are impaired, and for the restriction on future financing without the consent of the purchaser of the issue. In the case of a public offering of a low-rate coupon bond sold at a high price in time of easy money, the corporation may at a later period—with the tightening of the money market and the consequent drop in the price of such bond—repurchase the issue at a considerable discount and retire it. Such a retirement in the case of a privately placed issue is virtually impossible, since there is no subsequent trading in the public market.

Private placement may also check the corporation's financing in the future. As a result of private placement, in the course of time, the securities and the credit of the corporation may become less known to the general public, which may in the future be unwilling to purchase the obligations of the corporation. Such restraint would be a serious problem, particularly for a public utility, which, because of its continuous expansion, usually has need of a broad public market for its securities. Moreover, the corporation fails to derive the benefit of the searching analysis required as a basis for registration.

2. *The institutional purchaser*. The first disadvantage from the standpoint of the purchaser lies in the fact that the security may be unliquid. Where the private issue is not registered, its market is legally open to question.[11] If at some time in the future the credit of the issuing corporation becomes impaired, the institutional investor, because of its superior investment knowledge, may realize the impending decline in the credit of the issue, but may be legally

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[11] See below, p. 224n.

unable to anticipate the loss. Similarly, the holder of a privately placed issue may not be able to sell it in order to raise funds.[12]

The second disadvantage lies in the fact that the security is untested. It is true that such privately placed securities are bought only from corporations of good credit standing and only after a searching analysis by the investment experts of the institutional buyer; but the holder does not have the advantage of the continuous testing afforded by the composite judgment of the broad open public market throughout the life of the security.

3. *The investment banking system.* The procedure of private placement is clearly injurious to the investment banking system. It affects adversely not only the dealers engaged in the primary market, but also the brokers in the secondary market for securities. From a broader viewpoint, private placement impairs the entire mechanism of the capital market, since the volume of publicly placed issues become insufficient to support essential investment banking facilities.

The effects of private placement upon the investment market may be illustrated by what happened in the year 1938. According to the private study mentioned above, 81.58 per cent of the $802,000,000 of privately placed issues was absorbed by 33 institutional purchasers, chiefly insurance companies, while the balance was purchased by 39 commercial banks and one governmental bank. Moreover, 36 of the 73 purchasers acquired 98.6 per cent of the total. In contrast, 705 institutions, including 37 colleges and universities, purchased 42 per cent of the public issues. The weakening of the investment banking system by eliminating from the scope of its operations a large portion of the better issues is of economic importance simply because it tends inevitably to increase the cost of handling the remaining volume of flotations at the expense of companies which are not so situated that they can utilize the direct placement method.

4. *The public.* The system of private placement also works to the disadvantage of the investing public. Individual and institutional

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[12] In rebuttal of this argument institutional holders point out that the privately purchased securities constitute only a small part of their total securities, and in the event of need the publicly purchased securities would first be sold.

investors and all but the largest financial institutions find available an ever-dwindling volume of high-grade bonds; and are thus forced either to purchase lower-grade securities or to add United States government bonds to already large holdings of the federal debt. The situation may again be illustrated by what happened in 1938. Of the $802,000,000 of private placements in that year, three savings banks and one university bought an aggregate of only $1,550,000. Since many of these private placements were the result of refunding operations, it will be seen that a large volume of securities was withdrawn from the general investment market and rendered henceforth unavailable for purchase by individuals or other investors.

From the standpoint of *general public interest*, direct placement has given an unfair advantage to the large institutional investors. The system has also weakened the Securities Act. By avoiding registration, the issuers have not been compelled to disclose their financial position. This condition would not be true of a corporation which has also sold an issue publicly, thereby disclosing its financial position.

A continuation of the financing of high-grade issues by private placement under present conditions would create two systems of investment: the private placement of high-grade issues sold directly to a limited group of institutional investors, and outside of the administration of the Securities and Exchange Commission; and the public distribution of lower-grade issues through investment banks, under the regulation of the government.

The economies to the issuing corporation, the shortening of the time involved in raising capital, and the desire to escape the regulations imposed by the Securities and Exchange Commission are powerful factors working in favor of direct placement. The disadvantages to those most directly concerned are less obvious and, in any case, they are usually less immediate.

The disadvantages of the system of private placement seem clearly to outweigh the gains. Of primary significance is its effect upon the capital market as a whole. By restricting the open market to a smaller volume of securities, it tends to decrease the breadth and the flexibility of the investment mechanism as a whole—both in connection with the flotation and the market for the redistribution of securities. The need is for a maximum number of marketable issues of well-known corporations—not a minimum number of such issues.

There is a difference of view as to the probable future of private offerings. There are many who believe that it is merely a temporary phenomenon—an outgrowth of the economic conditions of the capital market in recent years and the exigencies arising from new forms of public control. On the other hand, the view has been expressed that direct placement constitutes a development which will continue as a permanent feature of the capital market.[13] It is our view that, given a return to more normal conditions, the proportion of direct placement to total flotations will decline.

It is apparently not within the power of the federal government to regulate direct placement. This is because the institutions which purchase such issues are organized under state laws and their portfolios are thus not subject to federal control. The most that any federal agency could do would be to exert indirect pressure by means of adverse publicity. In view of the uncertain future of private placement, it would not seem to us desirable to attempt to develop state regulation at this juncture.[14]

VI. THE SMALL INVESTMENT HOUSE

The position of the small investment house at the present time requires special consideration. The small house may engage in the financing of local issues, which it usually originates, purchases and underwrites, and sells, and also in the selling of nationally distributed issues. Market trends and legal developments have affected these small houses adversely in some respects and favorably in others.

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[13] Churchill Rodgers, *Purchase by Life Insurance Companies of Securities Privately Offered* (paper read before Association of Life Insurance Counsel, Nov. 28, 1938), p. 384.

[14] The federal agencies charged with administering the Securities Act have not followed a consistent attitude toward private placement. At first, the Federal Trade Commission definitely recognized that issues privately placed with insurance companies were exempt from the act. Some time later the Securities and Exchange Commission, which replaced the Federal Trade Commission as the administrative agency for carrying out the Securities Act, took an unfavorable attitude toward privately placed issues. On another occasion the general counsel of the Commission also stated that "private financing may, in many instances, be at variance with the law, and that such a tendency is undesirable." (Securities Act of 1933, *Release No. 285*, Jan. 24, 1935.) The federal agencies have also issued conflicting statements as to the future marketability of privately placed issues.

In the first place, the conditions of the capital market have worked against the small house. Financing has been confined largely to high-grade, low-coupon refunding issues which the smaller houses participate in only as distributors. There have been comparatively few issues of medium-grade, high-coupon securities, the purchasing and selling of which in the past constituted the main business of the small houses. Market conditions have also favored the selling of securities to institutions, which conduct most of their transactions through the large houses, and have worked against the sale of securities to individuals, who place their transactions with small as well as large houses. Second, the legal conditions arising from the Securities Act have worked against the small investment banks. They are unable to maintain the large legal and accounting staff necessary to observe the highly intricate procedure required under the Securities Act.

There have been, however, certain developments which have in part offset these disadvantages. On the one hand, the metropolitan originating houses, in the interest of the entire investment system, have in recent years included a large number of small houses in purchase syndicates as well as in selling groups. Moreover, a number of the smaller houses, which in the past confined their activities to corporate financing, have expanded their operations to the financing of local municipal issues. The small house has also been helped to a certain degree by the provisions of the Securities Act which exempt issues sold only within a state.

Notwithstanding these favorable factors, the present position and the future outlook of the small house are far from satisfactory.

VII. ADEQUACY OF INVESTMENT BANKING RESOURCES

In recent years there has been considerable discussion as to whether investment banking resources are adequate. Many apparently believe that the existing stagnation of the capital market is attributable, at least in part, to a dearth of investment banking capital. In any case, it is feared that a shortage of such capital would quickly manifest itself if the issuance of securities was to be resumed on something like a normal scale. A brief analysis of this problem is therefore necessary to round out our discussion of the investment banking situation at the present time.

1. *The reduction of investment banking capital.* Throughout the early post-war years the amount of capital employed in the investment banking business increased rapidly. Since 1929, however, there has been an enormous decrease. In the early years of the depression, the investment houses suffered heavy reverses, owing to the necessity of taking large write-offs in connection with security losses. Moreover, a large number of houses either closed down completely or reduced their capital, diverting it to other fields of enterprise where the rate of return was higher. While there has probably been some increase during the last three or four years, the total amount of capital employed in the industry today is estimated at only about 300 million dollars.[15]

The fact that the amount of capital engaged in investment banking is now very small does not in any way indicate that it will be inadequate to meet future requirements. It is small now precisely because the volume of business is small. The adequacy of investment banking capital in the future will depend upon the prospect for its profitable employment in the industry. Capital will be attracted in proportion as the volume of business expands and the opportunities for profit increase.

2. *The importance of commercial bank credit.* Much of the discussion about the adequacy of capital in investment banking loses sight of the function of commercial bank credit. In the past, loans from commercial banks were often an important supplement to the supply of capital available for the purchase, underwriting, and distribution of securities. The commercial banks not only participated directly in originating issues and in purchasing and underwriting syndicates, but they also made loans which enabled investment houses to carry a larger volume of securities than would have been possible with their own resources.

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[15] This statement is based upon various estimates made by a number of individuals in the investment banking business. It should be noted that this sum represents the amount of investment banking capital available for purely underwriting purposes.

At present, the commercial banks are not permitted to engage directly in originating, purchasing and underwriting, or selling securities. They are, however, permitted to make collateral loans to investment houses. The volume of such loans that may be made is governed by the regulations of the Board of Governors of the Federal Reserve System with respect to margin requirements. The Board has generally been liberal in its policy with respect to collateral loans to investment houses.[16] If the volume of security offerings were to increase greatly, collateral loans from commercial banks to investment houses would undoubtedly prove an important supplement to the supply of investment banking capital.

While it may perhaps not be desirable to grant commercial banks the right to participate again in originating or in purchasing syndicates, there would seem to be no reason why they should not participate in pure underwriting—as sub-underwriters. This would require liberalization of federal and state legislation and relaxation of present administrative regulations.

It is our view that commercial banks, as the most important potential source of underwriting capital, should be permitted to act as sub-underwriters, though they should not be permitted to resell their securities to individual investors—that is, they should not become dealers in securities. If underwriting powers are granted, they should be subject to the following safeguarding provisions: (1) they should be allowed to underwrite only securities which they are permitted by law to carry in their own account; (2) the amount of such underwriting of a single issue should be restricted to a certain proportion of the bank's capital and surplus; (3) the amount of each sub-underwriting should be limited to a small proportion of the total issue; and (4) the total amount of sub-underwriting by any bank should bear a reasonable relationship to its capital funds.

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[16] Board of Governors of the Federal Reserve System, Regulation T.

CHAPTER XI

REGULATION OF THE INVESTMENT BANKING SYSTEM

The evolution of the investment banking system was accompanied by a tardy development of government regulation. While the enormous expansion of the investment business from 1900 to 1930 naturally resulted in a considerable development of public supervision, particularly on the part of state governments, it was not until after the disastrous events of the great depression that a far-reaching system of government regulation—comparable to that in the field of commercial banking—was established. We now have not only improved state regulation but also a federal system of control under various statutes, particularly the Securities Act administered by the Securities and Exchange Commission.

In this chapter we shall discuss—in the light of the analysis of the preceding chapter—the present system of state and federal regulation of investment banking operations. The Securities Act and the general state statutes are directed primarily at the control of the flotation of industrial securities—though the provisions of the federal law also apply to public utilities. Federal and municipal government issues are exempted by both federal and state acts. Railroads and public utilities are regulated under special laws, which are considered in the next chapter. The general law applies to the securities of both foreign governments and foreign corporations.

In analyzing the regulation of the investment banking system, we shall not be concerned with the details of security legislation and administration, but will focus attention upon the major issues which have arisen as a result of the laws and the administrative regulations which have been developed. Since the regulation of the flotation of new security issues began with state legislation, and since the federal system is in some measure based upon state experience, we shall first consider the system of state regulation.

I. STATE REGULATION

The regulation of the flotation of security issues began with the passage of the Kansas security law in 1911.[1] After a prolonged legal controversy, the principle of the blue-sky law was finally upheld by the United States Supreme Court in 1917. A number of other states shortly thereafter enacted similar laws, but state legislation did not become general until the post-war period.[2]

A. Methods of Regulation

From a legal point of view the state security statutes may be grouped into two classes—fraud acts and regulatory acts. The former aim simply to protect investors against fraud by the establishment of penalties enforceable through the courts. Regulatory acts are designed to exercise general control over the flotation of securities, the provisions of the law being usually enforced by regulatory agencies.

1. *Fraud acts.* Fraud acts have been passed in only a few states, including New York, which embraces the most important single capital market.[3] Under the New York law, which is called the Martin Act, the Attorney General is empowered to investigate fraudulent practices. These are to be prevented if possible before the issuance of a fraudulent security, by means either of a temporary or of a permanent injunction. If, however, the security has been issued, criminal charges may be pressed against the offenders.[4]

2. *Regulatory acts.* Regulatory statutes, popularly known as "blue-sky laws," have been enacted in almost all the remaining states. These may be grouped into three classes: (1) those which seek to control the general operations of dealers; (2) those which are directed at the issuance or sale of specific securities; and (3) those which impose supervision over both the general operators or dealers and the issuance and sale of specific securities. The necessity

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[1] Session Laws of Kansas, 1911, c. 133.

[2] *Hall* v. *Geiger-Jones Co.*, 242 U.S. 539.

[3] Laws of New York, 1921, c. 649.

[4] That the act has not been altogether effective is evident from the fact that one party, although enjoined three times, continued to sell securities. John E. Dalton, "The California Corporate Securities Act," *California Law Review*, Vol. 18, p. 120.

for attempting to control the sale of specific securities arises because of the interstate character of the security business.

The first type, that is, the dealer-controlled system, licenses dealers and, based on the disclosure principle, requires them to file information concerning new issues which must be registered. If the state regulatory body considers this information inadequate, it may undertake an investigation. In the event that the security appears to be fraudulent, its sale may be forbidden and the license of the dealer revoked. This type of law has been passed in only a few states.

The second type of law, which is directed at specific securities, seeks to effect control through requiring the dealer to take out a permit. This permit is required both in connection with the issuance of securities of domestic corporations and the sale of securities issued by corporations in other states. Under this law there is no surveillance of dealers, and there is no requirement to obtain a license or to register the security. This type is found in about a dozen states. The liberality with which such permits are issued varies widely in different states.[5] These statutes also differ as to whether or not they provide for preferences in the exemption of securities. On the one hand, certain states exempt non-promotional securities and apply the statutes only to promotional issues. Most states have no such preferences and apply their law to all securities with the exception of a limited group of issues which by their character are legally exempt.

The third and most widely used type of regulatory statute provides for both the licensing of dealers and the issuing of permits for securities. Some of these laws follow closely the Uniform Sales of Securities Act approved in 1929 by the National Conference of Commissioners on Uniform State Laws. This type of control has been most fully developed in California. The law of this state differs from the other statutes in this group by controlling all securities, non-promotional as well as promotional.

B. Fraudulent, Unsound, or Inequitable Securities

State control, whether in the form of specific fraud or general regulatory acts, must be carried out by regulatory agencies, which are usually created specifically for the purpose and are called commissions. These commissions are sometimes strictly limited in their powers by the legislative act, while in other cases they are given wide discretion in interpreting and enforcing the law. In some cases, although no discretion has been conferred, it has none the less been exercised by the state commission.

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[5] The same, p. 118.

The problem with which we are here concerned is the scope of the regulation that has been developed irrespective of the terms employed. Does the system attempt to control only the issuance of actually fraudulent securities, or does it seek to pass judgment upon the soundness of an issue and even the fairness or equitableness of the terms agreed upon? In some cases the statutes themselves confer upon the commission the power of passing not only upon fraud but upon soundness and equity. In other cases where the statute has granted to the regulatory agency simply the power to prevent fraud, the agency under its discretion has extended the scope of its power.

In numerous states an attempt is made to prevent the issuance of unsound as well as fraudulent securities. In California the basis for such control is found in the law itself.[6] In a leading decision the court held that the commission, under the law, had the power to grant or to deny a permit for the issuance of a security according to whether the applicant's proposed plan and methods "will be *fair* or *unfair*, *just* or *unjust*, *equitable* or *inequitable*, and . . . to whether their issuance and disposition will or will not work a fraud upon the purchaser."[7]

The law is applied to the sale of both bonds and shares. The bonds of all issuers, regardless of the financial prestige of either the issuing corporation or the investment bank, are subject to close scrutiny. The bonds are tested from the standpoint of the value of the mortgaged property, the adequacy of earning power, and the extent to which the terms of the indenture give sufficient protection to the bondholders. Shares are classified according to whether they are issued by going concerns or by newly organized corporations. Going concerns, in turn, are grouped according to their earning power and solvency. If the company has a satisfactory earning history and is in a solvent position, a simple procedure is followed and a permit is promptly granted. In other cases the permit is withheld, pending careful investigation.

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[6] Corporate Securities Act, c. 532, Laws of 1917.

[7] Italics supplied. *Doble Steam Motors Corporation* v. *Daugherty*, 195 Cal. 158.

In New York the law is nominally designed to prevent the issuance of fraudulent securities only. Moreover, the administrative officers charged with the administration of the act have publicly proclaimed that they do not "pass upon the merits of particular issues."[8] Nevertheless, they have actually attempted to prevent the issuance of unsound securities—as, for example, in the rules relating to the soundness of real estate mortgage bonds and of investment trust securities.[9]

The New York State Appellate Court has also given a broad interpretation of fraud on several occasions, such as the decision that

> where intent of parties in engaging in *fraudulent* practices in selling securities is to sell securities which are in fact worthless, or *worth substantially less than the asking price*, intentional misstatements need not be alleged, material misrepresentations, intended to influence bargain being enough, in view of Penal Law 421 as amended by Laws, 1921, c. 520.[10]

In several states the courts have similarly interpreted the expression "fraud" in a very broad sense. In Kentucky the court upheld the state securities law on the ground that its basic purpose was "to protect the unwary public from investing their money in either *fraudulent* or unsound securities."[11] In Minnesota the court held that "when the incorporators had no valuable experience in business . . . it is not necessary that an actual fraudulent purpose be found."[12] In Oklahoma the purpose of the statute is not only to prevent frauds but also to protect credulous and incompetent persons from their own inclination to speculate in hazardous undertakings.[13] A Kansas court has held that the state supervisory board had the power "to inquire as to the solvency and responsibility of the plaintiff, the sufficiency of its assets, the trustworthiness of those representing and managing it, the fairness, honesty and equity of its plan," and "the security afforded investors" that its funds would not be dissipated or misappropriated.[14]

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[8] Statement of Attorney General Albert Ottinger to the National Association of Security Commissioners, *Proceedings, Ninth Annual Convention, 1926*, p. 7.

[9] This policy of disavowing discretion and at the same time exercising it faintheartedly has had unsatisfactory results. In the twenties real estate bonds were sold on the basis of prospectuses which bore the caption that the issuers floating the securities were "under the supervision of the Insurance Department of the State of New York" or "under the supervision of the New York State Banking Department." These bonds were often unsound and brought loss to investors seeking not speculative profit but only a moderate return and safety.

[10] Italics supplied. *People* v. *Federated Radio Corporation*, 154 N.E. 656.

[11] Italics supplied. *Hampton Realty Co.* v. *Middleton*, 220 Ky. 603, 295 S.W. 904; see also *King* v. *Commonwealth*, 197 Ky. 128.

[12] *State ex rel. Hardstone Brick Co.* v. *Department of Commerce, Securities Division*, 174 Minn. 200, 219 N.W. 81.

In Michigan the court held that if the terms of the security were unfair and deceptive, they were to be considered "constructively fraudulent."[15] The court added that "in passing on untried financial enterprises, the Commission was within its right in refusing authority to sell bonds if the promised investment yield depended upon the judgment of the company's directors and the stability of interest rates."

State laws that are not intended to permit regulation beyond the determination of actual fraud are typified in the statute of Pennsylvania. The supreme court of that state has held that the act "does not contemplate the approval, by the Commissioner of Banking, of the business expediency or the plan of financing a corporation whose securities are to be offered for sale by the dealer."[16] In this state and others having similar legislation the regulation has not been extended to the determination of the soundness or the equity of securities.

C. Summary of State Security Legislation

The foregoing analysis of the character of state security legislation may be summarized as follows:

1. The regulatory type of statute, under which general control is exercised by regulatory commissions, is found in the great majority of states. Fraud acts, which are designed merely to punish fraud, are confined to a few states.

2. The most common form of regulatory statute is that which

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[13] *Hornaday* v. *State*, 21 Oklahoma Cr. 354.

[14] *Home Lumber Co.* v. *State Charter Board*, 107 Kan. 153 (1920), 190 Pac. 601.

[15] *Investment Reserve Corp.* v. *Michigan Securities Commission*, 238 Mich. 606 (1927).

[16] *Meteor Crater Exploration and Mining Co.* v. *Cameron*, 29 Dauphin County 248.

seeks to control both the general operations of dealers and the issuance and sale of specific securities.

3. In a number of states the statutes differentiate speculative or promotional issues from investment issues. The former are strictly scrutinized, while the latter are generally relieved from the burdensome formalities of inspection.

4. Little reliance is placed upon the disclosure principle, that is, the filing and dissemination of security information as a means of protecting the investor.

5. The extent to which these statutes are enforced varies widely in the different states: in some states there is practically no enforcement, while in others there is reasonably effective control.

6. In some states the statute confers upon the regulatory body the power, not only to control fraud, but also to determine the soundness of the security and the equity of its terms.

7. In general, there has been a strong tendency on the part of enforcing agencies to pass upon questions of soundness and equity as well as fraud. In the exercise of such power the agencies are generally upheld by the courts of their respective states.

It is apparent from this summary that there is a wide divergence in practice among the several states but that on the whole real progress has been made in recent years in the development of state security regulation. The main limitation has been that the state system could not effectively control interstate traffic in securities. Even the most rigorous state control system has found difficulty in checking the inflow of low-grade promotional issues emanating from other states and sold through the mails or by irresponsible agents and salesmen.

Genuine improvement in state regulation would result from the universal adoption of the Uniform Sales of Securities Act recommended in 1929 by the National Conference of Commissioners on State Laws. However, state regulation in the nature of the case cannot hope to be made effective in the regulation of interstate security transactions.

II. FEDERAL REGULATION UNDER THE SECURITIES ACT

The Securites Act, the most important federal statute for general regulation of security flotations, was enacted in the belief that previous regulations were ineffective, particularly as to the character of the information furnished with respect to new issues, the prevention of security losses, and the control of the practices of those engaged in the flotation of securities.

This section will consider: (1) conditions and practices in the market for new securities before the passage of the Securities Act; (2) the aims of the framers of the act in correcting these conditions, and the methods of control provided by the act to attain these ends; and (3) the effects of the act upon the flotation of securities.

To understand the general nature of the problem of regulation, it is essential, first, to consider the meaning of the term *fraud* in connection with the issuance of securities. It is necessary to distinguish between downright falsehoods in flotation literature and statements which, while literally true, convey only a portion of the truth. Such statements may be indirectly fraudulent, that is, they may omit significant information or present it in such a way as to mislead the investor as to the soundness of the enterprise or the fairness of the terms of the issue.

In cases where the information furnished is truthful, it is necessary to distinguish further between *adequate* information and *complete* information. *Adequacy* relates to the sufficiency of the information to enable the purchaser to judge the investment value of an issue—so far as such value may be judged by the past history and present position of the company. *Completeness* relates to the inclusion of all the information that might be assembled regardless of its usefulness in forming a judgment with respect to the investment status of the security. It is obvious that the information given might be adequate even though it were not altogether complete.

There has been a popular tendency to regard any security which turns out badly, involving losses to innocent purchasers, as fraudulent in character (see, for example, quotation from congressional report on page 240. This conception assumes that investment bankers and promoters should not only be truthful but should guarantee that the securities which they handle will maintain their value irrespective of general market trends. The failure to differentiate between fraudulent and unsound securities and to distinguish between adequate and complete information regarding security flotations is responsible for much of the controversy that has arisen in connection with the administration of the Securities Act.

A. Conditions and Practices prior to the Securities Act

In analyzing the situation in the market for new issues which led to the passage of the Securities Act, we shall consider the character of the securities floated, the adequacy of security information, the causes of security losses, and the policies of investment bankers in relation to the issuing agencies.

Direct, or outright, fraud has been found chiefly in connection with stock flotations by so-called "promoters." The promoter is usually an individual operating with little or no capital. While promotional enterprises have sometimes been legitimate in character, they have often been fraudulent, and are nearly always highly speculative. They deal chiefly in common stocks. The investment banking house is distinguished from the individual promoter by the fact that it has substantial capital of its own and is continuously engaged in the marketing of securities, chiefly of established corporations. While such houses have often put out securities of a highly speculative character, little evidence of direct fraud has been revealed in connection with their flotations.[17]

Indirect fraud in the form of misleading information is found much more frequently. Here ostensibly responsible investment banking houses were also involved. For example, investment houses floated "bonds" which were bonds in name only, and preferred stocks with preferences that were easily withdrawn. The twenties gave birth to hybrid securities which defied classification even by expert analysts, and issues with such complicated provisions that even well-informed corporate lawyers found difficulty in determining their meaning. The extent to which such practices were *deliberately* calculated to deceive investors may be subject to debate; but there can be no doubt that the literature was misleading.

During this period investment houses sponsored the securities of holding companies with pyramided capital structures, of investment trusts with meager asset value, and of foreign governments with seriously unbalanced budgets and a dearth of available foreign exchange. The statements accompanying such prospectuses were not false, but they undoubtedly led investors to believe that underlying values were present which did not, in fact, exist.

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[17] This statement is based on an analysis of the testimony presented in the extensive Hearings before the [S.] Committee on Banking and Currency on S. Res. 84, 72 Cong., *Stock Exchange Practices.*

The basic explanation of these policies is to be found in the general state of the investment market during the twenties. The volume of money seeking investment was constantly expanding—increasing faster than the supply of the usual types of new corporate security issues for purposes of industrial expansion.[18] In order to take full advantage of the opportunities for selling new issues, investment bankers were naturally interested in developing new types of securities. They found these chiefly in issues of holding companies and investment trusts designed to purchase securities outstanding in the market, and in foreign securities.

One result of this situation was a great increase in the number of investment houses. The membership in the Investment Bankers Association of America, including main offices and branch offices, rose from 593 in 1918 to 1,902 in 1929.[19] Many of these new houses were interested chiefly in speculative issues and were willing to take long risks for the sake of quick profits. The attending competitive pressure, along with the profit temptations of the immediate situation, gradually led the more conservative houses to join in the new financial developments.

In connection with this analysis attention must also be given to the criticism often made that the investment banker did not properly serve the interests of the issuing agencies. The bankers have been charged with forcing "corporations to accept new capital for expansion purposes";[20] and they have been held responsible for creating the over-indebtedness of foreign governments and the unsound capital structure of domestic corporations.

The first charge of forcing new capital upon corporations fails

[18] See Chap. III, pp. 40-42.

[19] Compiled from the *Proceedings of the Seventh Annual Convention of the Investment Bankers Association of America*, Aug. 31, 1918, p. 19, and *Proceedings of the Eighteenth . . .*, Aug. 31, 1929, pp. 77, 78.

[20] 73 Cong. 1 sess., *Federal Supervision of Traffic in Investment Securities in Interstate Commerce*. H. Rept. 85 to accompany H. R. 5480, p. 2.

to recognize the important change in the financial policy of American corporations that was occurring throughout the twenties. American industry was shifting its method of financing from commercial paper to securities. This step was being taken consciously and voluntarily by the corporations and was not forced on them by the investment bankers. Moreover, the records clearly show that plant and equipment were not expanded in proportion to the amounts of investment funds available. As already noted, it was largely diverted to financial operations.

The second charge, namely, that over-indebtedness and unsound capital structures were developed, is not altogether sustained by the facts. Unquestionably foreign governments often increased their indebtedness to a point where the interest and principal could not be paid. It is also true that certain railway systems and certain public utility holding companies increased their indebtedness to a dangerous degree. But on the other hand, most industrial corporations and utility operating corporations were soundly financed. The capital structure of industrial corporations as a whole at the beginning of the twenties was unsound, owing to the existence of a large unfunded debt in the form of bank loans. By the end of the decade this debt was largely converted into long-term bonds, or stocks. The soundness of the capital structure of operating utility companies and industrial corporations at the end of the period is shown by the fact that few major operating utilities and industrial companies failed during the depression of the thirties.

As a rule, the information furnished in prospectuses put out by investment houses was truthful so far as it went. The primary shortcoming was that the information was not sufficiently clear or inclusive to permit the prospective investor to arrive at an intelligent judgment as to the true value of the security.

This consideration brings us to the heart of the problem before us, namely, how complete must the information be in order to be *adequate?* This question will be considered in detail in the following section. The adequacy of the information furnished by investment bankers in the twenties with respect to bond flotations may, however, be briefly considered at this place.

The information furnished in bond flotations in the late twenties was in most fields adequate, though not complete in all details. This conclusion is based on an analysis of practically all of the bond circulars advertised in the financial press for the years 1926-29 inclusive.

As a result of the regulations of the Interstate Commerce Commission, information furnished in connection with railroad bond issues was adequate, and was also complete in all essential details. Information with respect to *operating* utilities, which were subject to state regulation, was less complete in some respects than that for railroads, but it was generally adequate to indicate the nature of the capital structure and the extent of the earning power.[21]

The information furnished in bond prospectuses on large industrial corporations was also generally adequate. On the other hand, information pertaining to bonds of medium- and small-sized industrial enterprises was incomplete and inadequate. The situation was even less satisfactory in the case of real estate securities. The data regarding holding companies and investment trusts were quite inadequate, and it was difficult even for an expert analyst to do more than guess at the true investment status of the bonds of such corporations. Information regarding the financial position of foreign governments and foreign corporations often left much to be desired. The information with respect to governments, except for certain South American countries, was complete enough so far as budgetary data were concerned, but little attention was given to the problem of converting domestic funds into foreign currencies.

When the total volume of bond issues is taken into account, it appears that the information was, as a rule, adequate even if not complete in all details. Except in 1929 railroad and operating utilities accounted for the bulk of the bond flotations.

It should be pointed out here that even when information with respect to adverse factors was given in bond prospectuses, it was often overlooked or ignored by the investor. An analysis of the prospectuses of bonds issued in the twenties which subsequently went into default shows that at the time of issue the investor was informed of the existence of prior liens which threatened the safety of the investment, the inclusion of open mortgage clauses which allowed dilution of collateral behind the issue, the complete freedom which permitted the issuer to substitute poor for good collateral, and the previous defaults of the company.

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[21] An analysis of the published financial statements of 133 operating utility companies covering the period 1923-29 indicates that essential data were available.

In concluding this discussion a few comments may appropriately be made with reference to the enormous security losses of the depression period. The losses which followed the stock market collapse of 1929 have been widely ascribed to the failure of investment houses to tell the truth about securities. Thus the House Committee on Interstate and Foreign Commerce, which drafted the federal Securities Act, stated that

> . . . during the post-war decade some 50 billions of new securities were floated in the United States. Fully half or $25,000,000,000 worth of securities floated during this period have been proved to be worthless. These cold figures spell tragedy in the lives of thousands of individuals who invested their life savings, accumulated after years of effort, in these worthless securities. The flotation of such a mass of essentially *fraudulent* securities was made possible because of the complete abandonment by many underwriters and dealers in securities of those standards of fair, honest, and prudent dealing that should be basic to the encouragement of investment in any enterprise.[22]

The implication of this statement is that the mere fact of security losses is prima facie evidence of fraudulent flotations and that had a system of federal regulation been in force the losses would have been largely, if not wholly, prevented. That this assumption is overly optimistic is evident from the following facts: (1) even in cases where the information furnished was truthful and complete in all essential details, as in the case of railway issues, the losses sustained were exceptionally heavy; and (2) the value of securities declined heavily in countries which had close supervision of security issues as well as in countries which did not. It is also of interest to note that the market losses of 1937 occurred at a time when the United States had careful regulation both of security issues and of the stock exchanges.

The basic cause of the enormous losses following 1929 was not the fraudulent issue of securities but the world depression. When the depression came, the great contraction in the volume of general business and accompanying shrinkage of earnings destroyed much of the underlying value of all outstanding securities. This is not to argue, however, that the existence of so large a volume of highly speculative securities having a small margin of earnings and exaggerated expectations did not contribute to the severity of the decline of security prices. Nor is it to argue that the regulation of investment banking is undesirable. Sound regulation may minimize, though it cannot prevent, losses.

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[22] Italics supplied. 73 Cong. 1 sess., H. Rept. 85, p. 2.

B. Purposes and Control Devices of the Securities Act

The Securities Act, which was passed in 1933, sought not only to prevent securities which were traded in interstate commerce from escaping regulation, but to place the investment banking system as a whole under an adequate system of control analogous to that in the field of commercial banking. In this section we shall analyze the stated purposes of the act, the methods of control which have been developed, and the more important effects of the act.[23]

1. *Stated purposes of the act.* The two primary objectives of the federal Securities Act were (1) to prevent fraud in the sale of securities, and (2) to provide that potential purchasers be furnished complete information. To achieve the first purpose, the act follows closely the wording of state fraud statutes, particularly the Martin Act of New York. For the second objective the general principle of full disclosure, as embodied in the British Companies Acts, was adopted.

The securities legislation was not intended to make the Securities and Exchange Commission judge or guarantor of the soundness of security issues. Both the framers of the law and its administrators have disavowed any such intention. A leading member of the Senate committee stated that the government did not "undertake to approve or guarantee the present soundness or the future value of any security."[24] In his message urging the passage of such legislation, President Roosevelt said that "the Federal Government cannot and should not take any action which might be construed as approving or guaranteeing that newly issued securities are sound in the sense that their value will be maintained or that the properties which they represent will earn profit."[25]

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[23] The analysis of general control over securities by the government is confined to the Securities Act of 1933, as amended in 1934, which regulates the flotations of new securities. No consideration is given to the Securities and Exchange Act of 1934, since this law is primarily concerned with the regulation of transactions in securities already outstanding in the market.

[24] *Stock Exchange Practices*, p. 153.

In administering the act, the Federal Trade Commission, before the formation of the Securities and Exchange Commission, asserted that it was not authorized "to pass in any sense upon the value or soundness of any security."[26] Every prospectus issued under the Securities Act must carry the following statement: "It is a criminal offense to represent that the Commission has approved these securities or has made any findings that the statement in this prospectus or in the registration statement are correct."

It is thus apparent that the Securities and Exchange Commission does not (1) guarantee security issues in the sense of being prepared to make good any losses which may occur; (2) approve issues in the sense of stating that in its judgment the security constitutes a sound or an equitably priced investment; or (3) certify that the information contained in the registration statement or in the prospectus is true. The function of the Securities and Exchange Commission is merely to require that the issuer furnish complete and truthful information and to enforce this requirement by adequate penalties.

2. *Methods of regulation.* In order to carry out the purposes of the act, various control devices are provided. These include the registration statement, the letter of deficiency, the stop order, the waiting period, the prospectus, and the imposition of penalties.

The registration statement, which the issuer is required to file, serves as a source of information for the prospective buyer, and also as a record of the representations made by the officers and directors of the issuing corporation when the issue is sold. The statement is prepared by the issuer with the aid of the originating house. The law requires detailed statements covering the history of the company, contractual relationships, property valuations, descriptions of outstanding securities, the balance sheet and income account, and other data. Its compilation requires the assistance of lawyers, accountants, engineers, and other technical experts, and its preparation often entails conferences extending over several months.

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[25] 73 Cong. 1 sess., H. Rept. 85, p. 2.

[26] Release No. 1, Federal Trade Commission, May 27, 1933, p. 2.

When received by the Commission the registration statement is subjected to a careful scrutiny for compliance with the law or the regulations of the Commission. The examination is conducted by a Registration Division which includes accountants, lawyers, examiners, and experts operating under the direction of an analyst.

A *letter of deficiency* is used when the registration statement is found to be incomplete. The Commission in such cases sends the issuer a letter indicating the specific deficiencies that have been discovered.

The *stop order* is employed when serious deficiencies are disclosed and hearings are deemed necessary. The stop order suspends the registration. The Commission then sets a hearing date at which the Commission presents its evidence and the registrant may offer his own evidence in reply. The evidence which has been presented at such hearings indicates that stop orders are issued for the purpose of preventing statements which violate the law from appearing in the registration statement.

The stop order not only calls attention to downright untruthful statements, but also points to the misrepresentations of essential items in the balance sheet, to the absence of details with respect to losses on previous issues and previous unsuccessful operations on the part of promoters.

The *waiting period* is the interval of 20 days required under the Securities Act between filing of the registration statement and its *effective* date. This period enables the Commission to determine whether full disclosures have been made, and permits prospective buyers to make a careful study of the information.[27] The waiting period is therefore intended to exert a check on high pressure and manipulative selling, and so regulates not only the purchasing but also the selling function.

The *prospectus* issued to the investor is the essential sales literature for general distribution to prospective investors. It contains the more important facts presented in the registration statement and is in a way a summary of the latter document. The purpose of this document is "to secure for potential buyers the means of understanding the intricacies of the transaction into which they are invited."[28] The prospectus must be given to every purchaser either at the time the security is offered or at the time of its sale. The prospectus also must be delivered by a dealer and underwriter for one year after the original offering; there is no time limit on the delivery of the prospectus in the case of an uncompleted offering.

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[27] *Third Annual Report of the Securities and Exchange Commission, 1937*, p. 3.

Criminal and *civil penalties* are provided for infractions of the Securities Act. Imprisonment and fines are imposed on persons found willfully to have made untrue statements in a registration statement. Such persons also have civil liabilities to the purchasers of securities bought on the basis of such statements.

C. Effects of Securities Act on Flotations

If we are to judge the effects of the Securities Act on the flotation of new issues, we must study its administration in relation to the various operations of origination, underwriting, and distribution as performed by investment banking houses. The analysis will be concluded with a discussion of the scope of the Commission's regulations with respect to fraud.

1. *Effects on origination.* The severity of the penalties under the act and their aggressive enforcement have unquestionably tended to prevent the origination of fraudulent securities. It has not been necessary as a rule to impose actual penalties. The mere threat has apparently prevented the initiation of many fraudulent schemes; and those which are not thus prevented have been checked by the letter of deficiency and the stop order, particularly the latter.

The act has also served to increase the care with which a proposed issue is investigated. As already mentioned, the Commission, in carrying out the law, has required the disclosure of extensive information. Moreover, the severe penalties for fraudulent and incomplete information make it necessary for investment bankers and promoters, in their own interest, to undertake a thorough investigation of each new proposal. The exacting requirements of the registration statement have also had a beneficial effect upon corporate financial practices. The preparation of this statement involves a selfsearching procedure which has sometimes revealed unsatisfactory conditions long overlooked, such as the over-valuation of assets, the inadequacy of depreciation reserves, and even defects in title to property.

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[28] 73 Cong. 1 sess. H. Rept. 85, p. 8.

The question naturally arises whether such requirements may not deter the flotation of sound and desirable issues. It is of course possible that the mere fear of penalties for the omission of some fact which an overscrupulous, if not hostile, official may interpret as of *material* importance might have led some potential issuers to hesitate to assume the risks involved in a public flotation of securities. We have no concrete evidence, however, that such has been the case.

More important are the cost and time involved in complying with the detailed requirements of the law. Weeks and sometimes even months are required to assemble the necessary data and prepare the reports. The cost is particularly serious for the small corporation which does not maintain the necessary technical staff and cannot well afford to employ outside experts. The character and significance of these charges are indicated in the table on page 149.[29] One result of the high costs and the delays involved in public offerings has been the growth of private placement which has been discussed in a preceding chapter.[30]

The act cannot be administered economically and expeditiously if a fetish is made of information irrespective of its relevancy to the purpose in hand. An effective administration of the law simply requires the assembling of *adequate* information with respect to significant aspects of the company's history and present situation. The costs and delays involved will naturally tend to decrease somewhat as the Commission's procedures and requirements become clarified and standardized, and as experience is gained by the issuing corporations and their bankers. But a simplification and minimization of requirements is still essential in the interests of economy and expedition.

The requirements in the registration statement should be less exacting for well-established and prosperous companies than for new and untested corporations. Until recently the Commission imposed the same requirements on both types of corporations. At present different forms of registration statement are provided but the successful and solvent corporation is still made to furnish a considerable volume of unnecessary, irrelevant information and is subjected to much the same type of procedure which is used in the case of distressed companies or of new concerns of undemonstrated merit.[31] It will be recalled that in the case of some of the better state laws a differentiation has been drawn with beneficial effect between well-established, solvent companies and untested or insolvent enterprises.

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[29] It was there noted that important as these expenses are, they do not bulk large as compared with the commissions and discounts.

[30] See pp. 206-08.

The Securities Act may also affect the *method* of negotiation. As explained in the previous chapter, negotiation may be undertaken either privately or competitively. Although chairmen of the Commission have expressed themselves in favor of the principle of competitive bidding, the practical operation of the act may well be in the opposite direction. Under a non-competitive system the investment banker can afford to make the thorough investigation required and assume the risks involved, because he is virtually assured of bringing out the issue. He can, however, ill afford to make such an investigation when there is only a chance that he might be the successful bidder. Hence, the insistence upon thorough investigation militates against the assumption, by conservative houses, of the risks involved in competitive bidding. They cannot do the investigating after the bid has been made because of the practical necessity of marketing the issue promptly. Less responsible houses will be more likely to take a chance.

The "waiting period" after the filing of the registration statement has been a subject of special controversy. The purpose of the waiting period, as already indicated, is to give time for all parties in interest to scrutinize and study the registration statement. Two questions must be considered: (1) whether any waiting period is essential; and (2) whether as much as 20 days is necessary.

The answer to the first question is clear. If we are to have a registration statement and supervision of the regulation of securities by a federal agency the regulatory agency must be given time to perform its function. It is also desirable that underwriters and dealers, as well as the investing public, should be given time in which to study the terms and conditions of the issue. Anyone who opposes a waiting period is simply expressing disapproval of any effective regulation.

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[31] Railroad securities which are issued under the supervision of the Interstate Commerce Commission are exempt from the 20-day waiting period. On the other hand, public utility issues, even those whose financial operations are controlled by federal or state regulatory agencies, must file a registration statement.

The vital question is the length of time that is really essential to a proper study of the registration statement. In view of the costs and risks involved to the issuing corporation in delaying the consummation of the project, it is obviously important that the waiting period be made as short as possible, consistent with effective investigation. It should be noted that the risks of money market changes to the investment banker have been greatly reduced by the development of the practice of deferring the signing of the underwriting agreement until the seventeenth day after the filing date. Even during the remaining three days the banker's risk may under emergency conditions be further protected by applying the provisions of the "market-out" clause. The major risks of the waiting period are thus borne by the issuing corporation.

A waiting period as long as 20 days was perhaps essential at the beginning of the administration of the Securities Act. The administrative staff of the Commission needed adequate time in which to develop its procedures for carrying out the provisions of the act; similarly, the officers of issuing corporations and of investment banking houses needed time to familiarize themselves with legal and other requirements imposed by the act and by the regulatory provisions which were being evolved. Now that many of the moot questions have been cleared up and the procedure standardized, it is evident that the waiting period could be very greatly shortened.

Given an adequate and competent staff, it would seem that a few days at the most would suffice to determine whether the information contained in the statement was reasonably complete and adequate. It should be recalled that the Commission definitely declines to pass upon the truthfulness of the data furnished; to check the truth of all statements contained in a registration statement would obviously take very much longer than 20 days. Within a week it should be possible to discover whether there are irregularities which warrant the issuance of a letter of deficiency or stop order. Once the stop order is issued all the time required can be taken to investigate the issue.

Certainly in the case of well-established and prosperous companies which have heretofore passed the scrutiny of the Commission, there is no reason for a delay of 20 days after the filing of the registration statement. The only result in such cases is to increase the risks and the costs to the borrowing corporation.

2. *Effects on underwriting.* The term "underwriting" is given a broad definition in the Securities Act. An underwriter is defined as

> any person who has purchased from an issuer with a view to, or sells for an issuer in connection with, the distribution of any security, or participates or has a direct or indirect participation in any such undertaking, or participates or has a participation in the direct or indirect underwriting of any such undertaking.[32]

This vague and obscure terminology is evidently intended to include all parties who in any way engage in the purchase or underwriting of security issues. No differentiation is made between outright purchase and pure underwriting on a contingent basis; nor is a line drawn between underwriting and sub-underwriting whether by investment banks or other institutions. The only operation excluded by the definition in the act is the distribution of securities. The act specifically excludes a dealer in securities, that is, "a person whose interest is limited to a commission from an underwriter or dealer not in excess of the usual and customary distributors' or sellers' commission."[33]

The purpose of this broad inclusive definition is evidently to make as many parties as possible liable to the investing public. In the analysis of the preceding chapter the conclusion was reached that liability to the investing public should naturally be assumed only by those who are in a position to judge the truthfulness of statements and to elicit from the issuing corporation complete and adequate information. Any party which does not have direct access to the corporation is not in a position to assume responsibility for the truthfulness, adequacy, or completeness of the information furnished. This differentiation was not made in the act, and it has not been comprehended in the formulation of regulations for the administration of the act. This oversight has led to confusion with respect to the question of liability, particularly in relation to sub-underwriters, and it has militated against the issuance of securities.

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[32] Securities Act of 1933, 48 Stat. L. 75, Pt. 1, sec. 2 (11).

[33] The same.

In accordance with the principle enunciated above, the only parties which should assume a liability to the investing public are the originator and associated purchasing syndicate. As was shown in the preceding chapter, both the originator and the purchasing syndicate enter into direct but separate agreements with the issuing corporation. The originator, in the nature of the case, must make a complete investigation if he is to be successful in organizing a purchase syndicate. Since the associated houses have also entered into a direct contract with the issuing corporation to buy the issue outright, they may also be assumed to have made a thorough investigation in their own interest.

On the other hand, pure underwriters, who merely agree to take up a portion of the unsold part of an issue, have no direct relations with the corporation; they merely participate in the risks of marketing. Moreover, as underwriters they have no relations with the investing public.

It is interesting to note in this connection that the Securities Act has in effect recognized the validity of the principle here enunciated. The act requires the signing of the contract between the purchasers, called principal underwriters, prior to the effective date of the registration statement, but does not permit the signing of a sub-underwriting contract until after the effective date. This is a clear recognition of the fact that the sub-underwriter not only has no direct relationship with the issuing corporation but enters the picture at a later date and in a different capacity.

The distinction that we have been making has been recognized in tentative regulations designed to relieve other financial institutions from obligation to the public in their capacity as sub-underwriters. As we view the problem, the reason why a similar exemption is not regarded as proper for investment houses acting in the capacity of sub-underwriters is that they, like the purchasing syndicate, are also commonly engaged in distribution. What is not clearly seen is that the liability of the original purchaser does not arise from the fact that he is engaged in distribution. When either principal underwriters or sub-underwriters engage in the selling function they do not thereby assume a liability to the public—for dealers as such are not held liable under the act so long as sales are made strictly on the basis of the prospectus.

The conclusion to which this analysis leads is that only those whose names appear on the agreements with the issuing corporation should be held liable to the public. Since sub-underwriters—whether investment banks or outside institutions—are not in a position to obtain data directly from the issuing corporation, they should not be held responsible for statements contained in a prospectus with which they have had nothing to do. It follows that their names should not be included in the prospectus. Any minor advantage that might arise from the fact that a still larger number of houses is held responsible would seem to be much more than offset by the reluctance of sub-underwriters to assume not only the risk of marketing but an added liability to the investing public for a registration statement in the preparation of which they have had no part.

3. *Effects on distribution.* The influence of the Securities Act on distribution has manifested itself in connection with the dissemination of security information. The effectiveness of the actual dissemination of information must be considered, first, from the standpoint of the dealer. On the one hand, the law encourages the dealer to distribute security information during the waiting period, but at the same time it imposes criminal and civil liabilities if he solicits orders for the sale of securities during this interval.

This section of the act is defective in that it is not based on a realistic understanding of the meaning of the solicitation operation. Solicitation includes bringing the securities to the attention of the investor and at the same time inducing him to buy. In actual practice, no distinction can be drawn between furnishing information, which is encouraged by the act, and requesting orders, which is prohibited. These contradictory provisions discourage dealers from disseminating information for fear of the penalties involved, and thus the very purpose of the waiting period is defeated. In actual practice, if the issue proves appealing to prospective buyers during the waiting period they will approach the dealers; conversely, if the issue is unattractive to prospective buyers, the dealers are naturally tempted to make every effort to obtain preliminary orders despite the provision of the law. It should be noted that security salesmen in general no longer receive fixed salaries but are on a commission basis, and under these conditions there is every incentive to prepare the way for sales even during the waiting period.

The effectiveness of the distribution of security information must also be judged from the standpoint of the various classes of buyers. The large investor, including both the individual and the institutional buyer, is benefited by the new system of security information, for he now receives complete information which, because of his experience and technical knowledge, he can understand. On the other hand, the small investor receives little practical help from the more elaborate information furnished. At best, investment analysis is a highly technical procedure, and the small investor has neither the skill nor the training to understand the significance of the facts in the prospectus.

Prospectuses in general can today be justly criticized as being unnecessarily legalistic and extensive. They contain elaborate recitals of the underlying documents drafted by the lawyers for the issuers and are over-technical in including long extracts from the reports of the engineering experts. As a result, the prospectus is of little utility and is an enigma to the average investor. The Securities and Exchange Commission, realizing these shortcomings of the prospectus, has urged the issuers to condense them.[34] The Commission's request has been couched in general terms, and few specific suggestions as to how the desired end might be attained have been offered.

Under the penalties now contained in the act, condensation resulting in unintentional omission or over-emphasis may impose serious penalties on the issuers and the bankers. If the requirements and the penalties imposed by the law are applicable equally to the registration statement and to the prospectus, then the prospectus and the registration statement might as well be combined in one document. The fact that both a registration statement and a prospectus are provided for implies that they are designed to serve different purposes. The registration statement is supposed to contain the complete information required by the law with respect to legal, engineering, accounting, and other problems. The prospectus, on the other hand, need contain only such information as is necessary to provide the potential investor with an adequate basis for judgment as to the general credit position of the company, the status of the particular issue being offered, and the terms under which the issue is to be sold. Any investor desiring further information has recourse to the complete registration statement. The penalties attaching to the prospectus should relate only to statements which are misrepresentations of the information furnished in the registration statement.

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[34] Securities Act of 1933, Release No. 1503, July 12, 1937.

In concluding this discussion of federal regulation, the question should be raised as to the scope of the Commission's interpretation of its powers under the law. In surveying the state regulation of securities, it was noted that state officers operating under so-called fraud or publicity statutes had tended in some cases to broaden the interpretation of the term "fraud" to embrace considerations of soundness.[35] It will be recalled that the Securities Act was intended merely to provide complete information and prevent the sale of fraudulent securities, and that there was no thought of having the Commission pass upon the soundness of issues or the fairness of the terms embodied in the contract.

There is no direct evidence of a tendency on the part of the Securities and Exchange Commission to interpret its powers as including passing judgment upon the soundness and equitableness of securities. One finds in the official explanations given for the issuance of stop orders occasional statements which might perhaps be interpreted as going beyond the determination of fraud. However, there is no real indication of any conscious extension of the scope of the Commission's authority.[36]

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[35] Under the Public Utility Holding Company Act of 1935 the Commission is definitely authorized to pass upon the soundness of holding company issues. See p. 265.

[36] An opportunity to protect the investing public against the issuance of unsound securities and to maintain satisfactory professional standards is afforded by the

RECOMMENDATIONS AS TO THE SECURITIES ACT

On the basis of the foregoing analysis, it would seem that the adoption of the following recommendations would be desirable:

1. *Registration.* The present uniform registration procedure, applicable alike to all types of corporations, should be modified, in conformity with the Uniform Sales of Securities Act in force in some of the states. In the case of new companies and of weak existing companies the present procedure is necessary; but in the case of established companies with a satisfactory financial structure and adequate earning power it should be simplified.

2. *Letter of deficiency and stop order.* The use of the letter of deficiency and the stop order by the Commission should be confined to cases involving direct or indirect fraud. The law, in its present form, does not authorize its use as a device for preventing the issuance of unsound or inequitable securities.

3. *Waiting period.* A period of time in which the Commission and other interested parties may investigate the registration statement is essential. But, in the interest of reducing risks and saving money and time for issuing corporations, the time should be reduced to the minimum consistent with effective supervision. In a great majority of cases no great amount of time is required, and in difficult or doubtful cases the letter of deficiency and stop order provide all the time that may be required. Our conclusion, accordingly, is that the waiting period should be materially shortened.

4. *Sub-underwriting.* Sub-underwriters (which are not participants in the agreements with the issuing corporation) should not be held liable to the investing public, and their names should not appear on the prospectus.

5. *Distribution.* Between the filing date and the effective date, solicitation of tentative offers by a dealer and indication of interested intent by a potential buyer should be legally recognized and

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Maloney Act of 1938. While this act is primarily directed toward the regulation of the "over-the-counter" market, it authorizes security dealers to associate for the purpose of self-regulation in co-operation with the Securities and Exchange Commission. They are expected to take the initiative in developing a system of self-regulation. Under this authorization regulations are now being formulated with the co-operation of the Securities and Exchange Commission.

permitted without incurrence of liability, but no firm commitment should be allowed until after the effective date.

6. *Prospectus.* The law should recognize that the prospectus and the registration statement are intended for different purposes; and the penalties imposed with respect to completeness should not be applicable to the prospectus. The only penalty attaching to the prospectus should be for failure to present a faithful summary of the material facts as revealed by the registration statement.

The prospectus, which is intended primarily for the use of the investor, should be greatly simplified as compared with the registration statement, and be focused on the data essential to an adequate appraisal of the soundness of the issue and the reasonableness of the price and terms at which it is offered.

CHAPTER XII

OTHER FORMS OF CAPITAL MARKET REGULATION

The analysis in the preceding chapter was confined to the discussion of general laws intended to regulate the flotation of securities through the medium of investment banking institutions. In order to round out the picture of government control over the investment process it is necessary to summarize briefly two other types of regulation which have been developed. The first relates to the control of the security issues of *specific* classes of corporations. The second is *general* in character, directed not to the issuers of securities but to the regulation of the investment policies of financial institutions which serve as intermediaries between investors and the securities markets.

I. REGULATION OF SPECIAL TYPES OF CORPORATIONS

The regulation of the issues of specific classes of corporations is of three kinds: state regulation of public utility issues; federal regulation of public utility holding companies; and federal supervision of the issues of transportation companies.

A. State Regulation of Public Utility Issues

Over the years state regulation of public utility securities has been expressed in both special charters and general statutes. At first the state legislatures granted to railroads and public utility companies special charters which included provisions describing the amount and the class of securities which could be issued and at times the price at which they could be sold.

The enforcement of these provisions was at first administered by the legislatures themselves. Such administration proved unsatisfactory because of the difficulty of passing additional laws by the legislatures. In the course of time the securities of public utilities were regulated by general statutes administered by the courts, but such judicial control proved ill adapted to the supervision of such a dynamic activity as utility financing. As a result the administration of these general statutes came to be entrusted to state commissions. Massachusetts was the first to undertake such commission regulation of public utility securities.[1]

There are two viewpoints as to the need of regulating the securities of public utility corporations by state commissions. One view holds that commission regulation should extend only to determining fair rates and maintaining adequate service, and that these matters bear no relation to the financial operations of public utilities. The other view maintains that rates and services are closely related to financial policy, and that the regulation of security issues constitutes the very cornerstone of public regulation.[2] The second view is supported by financial experience, for rates have often been affected by the soundness of the capitalization of the rate base, and maintenance of plant has been limited by the burden of debt service and dividend payments.

The state laws regulating public utility finance are of two types—non-discretionary and discretionary. The non-discretionary statute merely provides for publicity and information. It requires the utility to file a certificate of notification of the past capitalization of the company together with details concerning the present issue.[3] Statutes of this type aim to protect only the investor and he is safeguarded merely against fraud. These statutes are to be found in only a few states, notably Pennsylvania and Virginia.

Most states have enacted discretionary statutes, which give the state agencies extensive control over the financial policy of public utilities for the purpose of attaining sound capitalization and sound credit.[4] The rulings of these agencies and the decisions of the state courts clearly indicate the extent of the discretionary powers conferred upon these agencies. Thus, the Wisconsin commission rejected a proposed issue on the ground "that the projects could not be financially successful" and "that the securities would not be a safe investment."[5] The Wisconsin State Supreme Court definitely stated that the purpose of the state utility act was not publicity but a determination by the commission that the acts proposed should or should not be permitted.[6] The Public Service Commission of New York stated that it would consider whether there is reasonable prospect of a fair return upon the investment proposed, to the end that securities having apparent worth but actually little or no value may not be issued.[7]

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[1] Irston R. Barnes, *Public Utility Control in Massachusetts*, p. 20.

[2] C. J. Bullock, *Control of the Capitalization of Public Service Corporations in Massachusetts* (Publications of the American Economic Association, 3rd series, Vol. X, 1909), p. 384.

[3] For comment, see Irwin S. Rosenbaum, "Financial Planning—A Management and Regulatory Tool," *The Journal of Land and Public Utility Economics*, Vol. VIII (1932), p. 55.

[4] Irwin S. Rosenbaum and David E. Lilienthal, "Issuance of Securities by Public Service Corporations," *Yale Law Journal*, Vol. 37 (1928), p. 908; Maurice C. Waltersdorf, "State Control of Utility Capitalization," the same, p. 337.

The attitude of the courts toward the exercise of discretionary power has varied. In one early New York State decision the court held: "We do not think the legislation alluded to was designed to make the Commissioners the financial managers of the corporation, or that it empowered them to substitute their judgment for that of the board of directors or stockholders of the corporation as to the wisdom of a transaction."[8] This decision represents a view which has since been generally discarded, for in most cases the courts have upheld the discretionary power of the commissions in governing the financial operations of public utilities to a greater extent even than in regulating rates.

The regulation of public utility securities is not a guarantee of soundness. The knowledge that such securities have passed the scrutiny of a regulating commission undoubtedly improves their marketability. This fact has been officially recognized not only by the public service commissions but also by investment bankers.[9] The Committee on Public Service Securities of the Investment Bankers Association of America in 1923 favored the policy of having the state commission control the capitalization of public utility companies.[10]

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[5] *Central Steam Heat and Power Co.* v. *Railroad Commission*, 192 Wis. 599 (1927).

[6] *State ex. rel. Minneapolis, St. Paul and Sault Ste. Marie Ry. Co.* v. *Railroad Commission*, 137 Wis. 80 (1908).

[7] *In re Hudson River Elec. Power Co.*, New York Public Service Commission, Second Dist., First Annual Report (1907), Vol. I, p. 170.

[8] *Delaware and Hudson* v. *Stevens*, 90 N.E. 60.

[9] New York Public Service Commission, Second Dist., Eleventh Annual Report (1917), Vol. I, p. xx.

[10] Investment Bankers Association of America, *Proceedings, 1923*, p. 121.

But the state bodies usually go out of their way to emphasize the fact that their exercise of such power must not be interpreted as a guarantee of the securities of the utilities under their jurisdiction. There is no assurance implied in such regulation that rates allowed to the utilities will be adequate to cover the debt service on such securities. However, Massachusetts recognizes its obligations to permit a company to obtain rates sufficient to cover not only operating expenses and depreciation but also the full interest on the funded debt and reasonable dividends on the capital stock. Such a policy can be followed only if the state has carefully regulated public utility securities and if there is no overcapitalization of the companies within the jurisdiction of the state.

The state commissions exercise wide powers. They regulate such specific subjects of financial policy as the purpose of an issue, the soundness of capitalization, the composition of the capital structure, the distribution of income, the system of bidding in connection with new issues, and the fixing of the offering price. The main provisions in the state laws on these subjects at the present time are summarized below.

1. *Purposes.* In most states the law provides that the proceeds of public utility securities shall be applied only to specific purposes such as the acquisition of new property; the construction, completion, extension, and improvement of present property; the improvement and maintenance of service; the refunding or discharge of existing obligations; and the reimbursement of funds actually expended from income and from the treasury for such purposes. These purposes are to be exclusive and not inclusive, and the proceeds may generally be applied to no other objects than those enumerated in the statute.

The intent of the restriction on the purposes of new issues is to give assurance that the funds will be applied to capital expenditures and not for operating purposes.[11] In this way it is expected that the outstanding securities will be based on actual capital assets and that the investor will thereby be protected. This theory has not proved true in actual financial experience, for the investor has not been protected by the existence of actual assets where a utility field, such as tractions, has been overbuilt, where expansion has been uneconomical, capital structure has been unsound, or earning power has been insufficient to meet debt service or provide reasonable dividend payments.

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[11] *In re Eighth Avenue Railroad Company*, No. 2625 (1922), Reports of the Decisions of the New York City Transit Commission, p. 12.

2. *Capitalization.* The commissions are generally given the right to regulate all classes of stocks, as well as bonds and notes, and other evidences of debt payable within a period of one or two years. In most cases short-term notes are exempted from the jurisdiction of the commission.

In most states it is the duty of the commission to regulate the capitalization of the company. Over-capitalization is to be avoided by seeing that the amount of the securities outstanding—the indebtedness plus the stock—is not in excess of the fair value of the physical properties of the utility.[12]

The extent to which commissions actually control the capitalization of utilities varies widely. In Arizona, the commission openly declared that it was unnecessary for it to pass upon the values back of securities issued under its authority.[13] However, securities such as the issue of first mortgage bonds of a public utility of doubtful credit, floated in 1925, were sold to investors through prospectuses which bore the statement that the issuance of the bonds had been approved by the Arizona Corporation Commission. These securities eventually went into default. On the other hand, the capitalization of public utilities has been controlled by such leading states as New York, California, Massachusetts, and Wisconsin.[14] In some cases state commissions have also sought to control under-capitalization, and have recommended the issuance of additional stocks and bonds.[15]

In some states the subject of capitalization is approached not from the viewpoint of rate making but from the standpoint of investment protection, and so the valuation of the underlying property is judged by the adequacy of future earning power to meet debt service or dividend payment. The state commissions therefore permit the issuance of new securities depending upon whether or not they believe that the underlying assets will yield income adequate to cover the financial requirements of the new securities. Thus the California commission refused to approve an issue because the data submitted did not show that the company was assured of a reasonable return.[16] The New York commission has held that a utility would not be allowed to authorize the issuance of bonds in excess of the amount upon which the property can regularly and with reasonable certainty earn interest after paying all operating charges, including reserves for depreciation, etc., and amortization payments.[17]

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[12] *Hillsdale Light and Fuel Co.* v. *Public Utilities Commission*, 220 Mich. 105 (1922).

[13] *Re Van Dyke and Miami City Power and Water Co.*, Public Utility Review, 1925, p. 142.

[14] 70 Cong. 1 sess., *Utility Corporation*, S. Doc. 92, Pt. 73A, p. 138.

[15] *In re City of Eaton Rapids and the New Charlotte Gas Co.*, D-1515, Orders and Opinions of the Michigan Public Utilities Commission (1922), CCH, Mich., p. 496.

3. *Composition of capital structure.* In many states the commission has the power to determine whether funds are to be obtained from the sale of bonds or stocks, and so governs the relative proportion of debt and equity in the capital structure. Commissions have generally followed a policy of seeking to reduce the proportion of debt to total capital. The California commission condemned "improper financing, carried over from the period when this Commission did not have control over the issue of stocks and bonds, [that] has resulted in some utilities depending entirely on borrowed funds."[18] The New York State commission, in one case, refused to allow the flotation of a bond issue to prevent possible future foreclosure.[19] The Wisconsin commission held that "a sounder system of financing would provide for a smaller proportion of bonds and a larger proportion of stock."[20] Massachusetts has followed an even more conservative policy, and has controlled not only the total

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[16] *In re El Pizmo Water Co.*, No. 17890, 29 Decisions of the California Railroad Commission 261, 263 (1927).

[17] *In re Mid-Crosstown Ry.*, No. 1728, New York Public Service Commission, First Dist., Report (1914), Vol. I.

[18] *In re Coast Valleys Gas and Elec. Co.*, No. 9789, 20 Decisions of the California Railroad Commission, p. 875 (1921).

[19] *In re Longacre Electric Light and Power Co.*, commented on in New York Public Service Commission, First Dist., Report, p. 244 (1911).

[20] *In re Wisconsin Electric Power Co.*, S.B.-1574, 25 Wisconsin Railroad Commission Reports 187 (1920).

amount of the debt, but also its quality by disapproving of the existence of a large floating or unfunded debt.[21] The expansion of debt is opposed on the ground that it leads to an undue increase in fixed charges, which may endanger the solvency of the corporation, and also to a large amount of debt in relation to equity, thus enabling the stockholders to control a corporation with a relatively small amount of actual investment.

In seeking to check the proportion of debt to total capital, some states have not been content with laying down general policies but have established specific standards. In Iowa, Nebraska, and Utah bonds may be issued only up to two-thirds of the capital stock, and in Indiana the total amount of indebtedness and preferred stock together must not exceed 75 per cent of the total common stock, preferred stock, and funded debt of the public utility.[22] In California, the commission has established the further principle that bonds must bear a specified relation to the value of the underlying property, and in no case should exceed 75 per cent of the latter.[23]

The value of requiring a specific proportion of bonds to total capital as a means of assuring financial soundness is dubious. The best distribution of capital between bonds and stocks varies not only from one utility field to another, such as gas, electric, telephone, and traction, but also within each field, depending upon technical factors, such as whether the company generates its power by steam or by hydro-electric power, or buys it from other companies.

4. *Distribution of income.* Certain states regulate the distribution of the income of public utilities as regards dividend payments and depreciation allowances. While such regulations are not directly concerned with the issuance of securities, they indirectly affect their prices. States generally oppose the payment of stock dividends. The Michigan commission denied the application for a stock dividend when the stock of the company was selling below par, and the company did not have earnings sufficient to pay cash dividends.[24] Some

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[21] *Petition of Boston Consolidated Gas Co.*, No. 628, Annual Report of the Massachusetts Department of Public Utilities (1922), Pt. I, p. 106.

[22] As amended by Acts 1933, c. 190, sec. 7A. (CCH, Ind., pp. 27, 104.)

[23] *In re Livermore Water & Power and W. A. Bissell,* No. 578, 2 Decisions of the California Railroad Commission 622 (1913).

[24] *In re Detroit United Ry.*, D-1117, Orders and Opinions of the Michigan Public Utility Commission (1921), (CCH, Mich., p. 497, sec. 4).

states also limit cash dividends to a fixed rate, on the ground that unrestricted disbursements result in higher rates to the consumers. However, Massachusetts has not followed this policy, in the belief that such a restriction would tend to check an improvement in the efficiency of operation and to destroy the initiative of a progressive management. At the same time in approving a certain bond issue the Massachusetts commission held that the company's provision for depreciation was inadequate, and required the setting aside of a special amount for depreciation for a 10-year period before allowing the payment of dividends.[25]

5. *Competitive bidding.* Several states in recent years have required that public utility securities be sold to investment bankers on a basis of competitive bidding for these issues.[26] Under the law of Massachusetts a gas and electric company, in issuing bonds, must invite proposals for their purchase by giving notice in the press. The Public Service Commission of New Hampshire, at its option, may insist on competitive bidding, in view of the fact that the commission has considered that "competitive bidding constitutes the best method of disclosing the most favorable terms upon which bonds may be issued and sold by a public utility."[27] It has generally required competitive bidding. In New York State competitive bidding is mandatory in case of a traction company operating under a contract with the City of New York.[28]

6. *Price fixing.* In a number of cases the state commissions also have the power to fix the minimum price at which stocks and bonds are sold. In Massachusetts the commission is specifically given such authority,[29] and the price must be "not so low as to be inconsistent with public interest." The commission has defined its duty "to prevent any issue of stock from being offered to the stockholders at a price materially lower than the stock would command, at the

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[25] *Petition of Marlborough-Hudson Gas Co.*, No. 747, 3 Mass. Department of Public Utilities Reports 117 (1922).

[26] See pp. 206-08 for discussion of this subject.

[27] *Public Service Company of New Hampshire*, 17 N.H.P.S.C. Reports 370 (1935).

[28] 1927 T.C.N.Y.C. No. 2857, Pur. 1928 B. 274. (CCH, Vol. II, N.Y., p. 400: 365, sec. 4050, p. 3.)

[29] *Petition of Salem Electric Lighting Co.*, 31 Mass. Gas & Electric Comm. R. 95, 96 (1915).

time of such offer, if it were sold freely in the open market."[30] Several states require that common stock be sold at a price not less than par.[31] This requirement is open to criticism, since it may severely handicap a company which is in a difficult financial position. Since such a company is unable to sell its stock below par, it is forced to obtain additional capital by the sale of bonds, generally at a higher rate of return than that on its stock. As a result a company already in financial difficulty is forced deeper into debt, and is compelled to pay a higher cost for its money.

The price of preferred stock and of bonds is also established by certain state commissions. Thus in regulating the price of preferred stock, the California commission disapproved the issuance of preferred stock at a price of 80 and required that it be sold at not less than par.[32] A number of states also fix the price of bonds,[33] and on various occasions have required that the bonds be sold on a lower-yield basis than that proposed by the utility.[34]

An important objective of public utility regulation by state commissions has been the protection of consumers. Since utility rates and services are directly affected by the financial policies of the utilities it is held that the issuance of their securities must be regulated by the commissions. A number of state laws are based on this premise and confer extensive discretionary power to control the financial policy of the utilities. The foregoing analysis indicates, however, that there has been little uniformity in the nature of this control and in the extent of its enforcement. While the regulation of rates and services may properly vary, since such regulation affects only local consumers, there should be uniformity in the regulation of securities, since they are sold to investors outside the state where they are issued.

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[30] *Petition of the Bay State St. Ry. Co.*, No. 1085, Fourth Annual Report of the Public Service Commission (1916), Pt. I, p. 245.

[31] *In re Great Western Power Co. of California*, No. 18961, 30 Decisions of the California Railroad Commission 540 (1927) (CCH, Cal., 614).

[32] *In re Peerless Stages*, No. 18775, 30 Decisions of the California Railroad Commission 349 (1917).

[33] *In re Illinois Northern Utilities Co.*, No. 16901, 6 Ill. Commerce Commission R. 387 (1926); also *In re William H. Needham and others*, and *Dickinson County Public Service Co.*, D-2082, Orders and Opinions of the Michigan Public Utilities Commission (1925), p. 450.

[34] *In re Southern Sierras Power Co.*, No. 18596, 30 Decisions of the California Railroad Commission 168, 169 (1927).

Since the rates and general operations of public utilities are controlled it is essential that in supervising the issuance of securities, commissions should carefully consider the adequacy of future earning power to meet the debt service and dividend payments on the issues which are permitted. They should also give attention to the relative amounts of bonds and stock in the capital structure, having regard to the varying requirements of different types of utilities.

B. Federal Control over Public Utility Holding Companies

In the decade of the twenties state regulation of public utilities was in large measure nullified by the rapid development of holding companies. These companies, being interstate in their scope, were beyond the jurisdiction of the state commissions. In consequence Congress enacted the Public Utility Holding Company Act of 1935, which placed holding companies under the regulation of the Securities and Exchange Commission.[35]

The Securities and Exchange Commission is given powers similar in many respects to those found in the more stringent state public utilities statutes. They pertain to the regulation of such matters as the purposes of financing, the nature of securities, the financial policies of the issuing corporations, and the fees of intermediaries. However, the federal government has no responsibility for control over the rates of such companies.

If securities are issued in the form of common stock they must have a par value and must also be based on a fair and equitable distribution of rights among the holders of the securities. In most cases bonds must represent a first lien on the property of the company. The law also gives the Commission the right to disapprove the issue if the fees, commissions, or other remuneration of the intermediaries are regarded as unreasonable. The Commission has ruled that no underwriting fee shall be paid to any person who, the Commission finds, stands in such relation to the holding company that there is likely to be, or to have been, an absence of arms-length bargaining with respect to the transaction.[36]

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[35] 49 Stat. L. 803, act of Aug. 26, 1935.

The law was intended to give the Commission extensive authority over the issues of holding companies. This is indicated by the character of the provisions listed above. In a dissenting opinion of Commissioner Jerome Frank in the case of the North American Company, Mr. Frank interpreted the act to mean that

> it is the duty of this commission, when passing on proposed new securities of utility holding companies, to anticipate future eventualities. We are peculiarly enjoined by Congress to protect investors in preferred stocks of such holding companies so far as possible against future possible *unfairness* which may be practiced upon them in the absence of adequate safe-guarding devices, should earnings drastically fall off for a time. . . . Congress instructed this commission to prevent such holding companies from issuing securities—and especially preferred stocks—unless they were surrounded with provisions which would prevent conduct *unfair* and *detrimental* to investors.[37]

It is thus seen that Commissioner Frank interprets the Holding Company Act as empowering the Commission to pass upon the equity of the bargain between the issuers and the investors, and also to safeguard at all times the interests of investors. He added:

> The conferring of such powers upon this agency is an important experiment, a conservative experiment for it represents an effort to conserve precious American traditions. If it works, it may become a pattern of governmental action in other fields of investment.

C. Federal Regulation of Railway Issues

The regulation of railway issues began in the states and was developed primarily for the control of the rates paid by consumers rather than for the protection of investors. Heavy losses to the public in connection with the New Haven, the Pere Marquette, the Alton, and other railroads, finally led to federal control of interstate railroads. Section 20a of the Transportation Act of 1920 conferred upon the Interstate Commerce Commission the exclusive control over the financing of interstate roads—the purpose being both the protection of investors and the users of railway service.

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[36] Rule U-12F-2.

[37] Italics supplied. Holding Company Act Release No. 1427, p. 26.

While the railroads were not enthusiastic over this development, one phase of the new control pleased them. Under the former state regulations it was sometimes necessary to obtain the consent of the boards of five or more states, a procedure which was expensive and time-consuming. Moreover, the state boards on occasion tried to force concessions favorable to their own states.

Under the federal law an interstate railroad may not issue any security until the Commission after an investigation finds that it is for a lawful object, is within the corporate power of the company, is in the public interest, and is reasonably necessary and appropriate for attaining the object. In the application of the railroad to issue, sell, or pledge securities it must state with whom it is dealing and give the details of all contracts and underwritings. The Commission is required to give the governor of each state through which the railroad runs a copy of the application so that representatives of state governments may appear at hearings.

Short-term notes, maturing within two years, do not need the approval of the Commission, provided the new issue and those outstanding are not over 5 per cent of the total capitalization. An examiner investigates, holds hearings if necessary, and makes a report of his findings to the Commission. The Commission may hold hearings if the applicant objects, and its decision is final. The approval of the Commission is also required for the assumption of obligations such as guaranteeing securities issued by others.

The Interstate Commerce Commission obtained its power at a time when there were in existence many securities which it probably would not have approved. In general, little has been done to correct past mistakes, but the Commission has been careful to see that in new issues only proper assets are capitalized and then only in so far as the value added to the railroad is not less than the new securities issued.

In reorganizations the Commission must pass on the securities of the new company. In addition, by section 77a of the revised Bankruptcy Act of March 3, 1933, as amended August 27, 1935 and June 26, 1936, the Commission must approve of the Trustees in Bankruptcy and the plans of reorganization for railroads. Also, loans by the Reconstruction Finance Corporation to railroads must have the approval of the Commission.

In consolidations, the Commission must be certain that the total of securities issued is not greater than the value of the property. It may object to the financial plan even if it approves the consolidation in general. At times the Commission has pointed out the dangers of mortgage bonds and has suggested capital stock as preferable. In general, non-voting stock has not been approved. The Commission sets a minimum price on the securities.[38]

The regulations of public utility and railroad corporations which we have been considering in this chapter have had more than one objective. In addition to safeguarding the investor, the purpose of both railroad and state public utility regulation has been to prevent the development of excessive capitalizations which might be used to justify excessive rates to the public. Inevitably the administration of broad regulations of this type has meant a comprehensive control by governmental agencies over the financial operations of the corporations involved. Such regulations have undoubtedly prevented the issuance of grossly speculative securities such as were frequently issued in the earlier days of both railroad and public utility financing.

That the federal regulation of railroad issues and the state regulation of public utility issues did not seriously restrict the flow of funds into these industries in the twenties is evident from the fact that the volume of flotations during that decade was very large. (See chart on page 17.) In the thirties the railroads have obviously been handicapped much more by their unsound credit position than by restrictions imposed by the regulatory agencies. In the main the Interstate Commerce Commission has been preoccupied with financial insolvencies and reorganizations rather than with the regulation of new issues, which have been confined largely to the issuance of equipment trust certificates. In the case of operating public utilities the fear of government competition has doubtless been a much more important factor in the capital market than the regulations imposed by state laws. The fact is that operating companies on a satisfactory earnings basis have met with little difficulty in placing securities.[39]

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[38] The action which caused the greatest controversy was the regulation that after June 26, 1926 all equipment trust issues must be sold by competitive bidding.

Holding company regulation by the federal government has an objective in addition to the protection of investors and the control of rates, namely, the restriction of the field of operations of such companies and the preventing of pyramiding of capital structures and the accompanying concentration of power. This law undoubtedly serves as a check on the expansion of holding company issues.

II. THE REGULATION OF INVESTMENTS OF INTERMEDIARY FINANCIAL INSTITUTIONS

Both state and federal governments have developed extensive regulations relating to the investments of intermediary financial institutions, including commercial banks and trust companies, savings banks, and life insurance companies. The primary purpose of such regulations has been the protection of the individuals whose funds are handled by these institutions. The character of these regulations may be briefly summarized.

In general the investments of mutual savings banks are under strict state regulation. The laws restrict bond investments to an eligible list, which includes the obligations of the federal government, state and municipal bonds, and corporate securities which meet certain definite requirements. Such institutions are also permitted to purchase first mortgage real estate obligations, with limitations designed to assure safety.

The investment of trust funds, when no authorization is given in the deed of trust, is in most states governed by precisely the same regulations which apply to savings institutions.

Life insurance companies are as a rule limited to the same types of investment as savings banks. In recent years, however, some states have broadened the scope of eligible investments to include preferred and guaranteed stocks which conform to rigid requirements. In two states, as has been noted elsewhere, insurance companies have been authorized to invest directly in housing projects to a limited extent.

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[39] For volume of issues, see p. 36.

Commercial banks are of three types, national, state, and private. Private banks, now negligible in importance, are subject to no regulation. The regulation of national bank investments was originally much more strict than that of state institutions, which were always permitted to invest in real estate mortgages. At the present time, however, except in a comparatively few states, the character of the regulations do not differ markedly from those imposed by the federal government on national banks.

National and state banking laws did not specifically authorize the purchase of corporate bonds, but the practice developed without objection on the part of the regulatory authorities. The character of the banker's loan and investment portfolio was, however, continuously subject to the scrutiny of federal and state bank examiners. The National Bank Act limits the ownership of stock (apart from that of Federal Reserve banks and affiliated safe deposit companies) to "such as shall be conveyed to it in satisfaction of debts previously contracted in the course of its dealings." Similar provisions are found in most state banking laws.

From the point of view of the capital market it is apparent that the regulations pertaining to intermediary investment institutions tend to restrict the flow of funds into *equity* securities. None of the institutions which assemble the funds of miscellaneous investors is permitted under the law to make them available for the purchase of such securities.[40]

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[40] An exception must be made for investment trusts, which in the main serve the larger investors.

CHAPTER XIII

TAXATION AND CAPITAL INVESTMENT[1]

A nation's taxation system *may* exert a profound influence upon the flow of funds into investment channels. On the one hand, the aggregate volume of tax collections, irrespective of the kinds of taxes levied, affects the total supply of available investment money; and, on the other hand, particular kinds of taxes, regardless of the amount of taxes as a whole, may either impede or foster the investment process. In former times taxes were ordinarily levied with a single object in view, that of raising the indispensable revenues required by government. But in recent years the tax machinery has also been employed for purposes of regulation and control—to bring about a redistribution of income; to force modifications of certain types of corporate financial policies; to restrain, or to encourage, the expansion of plant and equipment; to hamper certain types of businesses, and to foster others.

The growth in aggregate taxes in the United States in recent years, as well as the restrictive character of various types of tax levies, has led many to conclude that American taxation policy is a factor of primary importance in the restriction of investment. The purpose of the analysis which follows is to study the bearing of taxation upon the flow of funds into private investment channels, and to determine whether modifications in taxation policy might serve as a stimulus to the expansion of capital investment and the provision of added employment in the capital goods industries.

It should be emphasized that we are not undertaking an analysis of taxation in all its aspects. We are rather focusing attention upon the relation of the tax system to the flow of funds into capital investment. In some cases the relationship is very close, while in others it is indirect in character. Among the indirect influences is the unbalanced condition of the federal budget, which occasions fear with respect to the future stability of finance in general. This phase of the problem will be discussed in Chapter XIV.

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[1] This chapter was published in April 1939 as a preprint pamphlet. The subsequent passage of the Revenue Act of 1939 has necessitated some modifications in the text. Other changes have also been made in order to integrate the analysis with the study as a whole.

The present chapter will be divided into four parts: (1) We shall set forth the effects with respect to the growth of aggregate taxes—federal, state, and local—in relation to aggregate national income. (2) Since private capital expansion is carried out mainly by corporate enterprises, we shall show the increase of corporation taxes in recent years in relation to the trend of corporate income. (3) We shall survey briefly the development of the present complex corporate tax structure, which accounts for the increase in the volume of corporation taxes, and suggest modifications designed to eliminate inequitable and objectionable features and to provide greater simplicity and flexibility. (4) We shall show the effects of the system of individual taxation upon the investment process.

I. TAXES IN RELATION TO NATIONAL INCOME

The table on page 272, shows the trend of tax collections—federal, state, and local—in relation to national income. The table gives the annual figures from 1923 to 1938; and for purposes of comparison with the pre-war situation the year 1913 is also included.

The percentage of the national income absorbed in taxes has shown a progressive increase. In 1913 only about 7 per cent was taken in taxes; in the twenties the range was from 10 to 12 per cent; while since 1931 the range has been from about 17 to 22 per cent. The fluctuations in the percentage from year to year reflect both changes in the amount of income and in the amount of taxes. Thus the high percentage in 1932 was primarily ascribable to the very low income of that year, even though federal tax receipts were greatly curtailed. Between 1923 and 1938 aggregate tax collections—federal, state, and local—increased by approximately 93 per cent; but for the two years 1937 and 1938 the national income was slightly less than for the two years 1923 and 1924.

The tax collections in the thirties, moreover, were much less than the expenditures. In the twenties the excess of federal revenues over expenditures permitted a reduction in the federal debt of about 800 million dollars annually. Budget deficits began in the fiscal year 1930-31, and in the ensuing nine fiscal years they averaged 2.77 billions annually.

TAX COLLECTIONS AND NATIONAL INCOME, 1913, 1923-39
(Amounts in millions of dollars)

Year[a]	National Income[b]	Tax Collections[c]			*Taxes as Percentage of National Income*		
		Total	Federal	State and Local	*Total*	*Federal*	*State and Local*
1913......	33,000	2,259	662	1,597	*6.8*	*2.0*	*4.8*
1923......	68,000	7,234	3,032	4,202	*10.6*	*4.4*	*6.2*
1924......	70,000	7,812	3,193	4,619	*11.2*	*4.6*	*6.6*
1925......	76,000	7,884	2,966	4,918	*10.4*	*3.9*	*6.5*
1926......	77,000	8,605	3,207	5,398	*11.2*	*4.2*	*7.0*
1927......	77,000	9,059	3,337	5,722	*11.7*	*4.3*	*7.4*
1928......	80,000	9,342	3,194	6,148	*11.7*	*4.0*	*7.7*
1929......	82,691	9,759	3,328	6,431	*11.8*	*4.0*	*7.8*
1930......	69,104	10,266	3,468	6,798	*14.8*	*5.0*	*9.8*
1931......	54,249	9,300	2,717	6,583	*17.1*	*5.0*	*12.1*
1932......	40,089	8,147	1,789	6,358	*20.3*	*4.5*	*15.8*
1933......	42,504	7,501	1,786	5,715	*17.6*	*4.2*	*13.4*
1934......	50,611	8,773	2,892	5,881	*17.3*	*5.7*	*11.6*
1935......	55,794	9,731	3,546	6,185	*17.5*	*6.4*	*11.1*
1936......	65,226	10,498	3,847	6,651	*16.1*	*5.9*	*10.2*
1937......	71,883	12,300	5,028	7,272	*17.1*	*7.0*	*10.1*
1938......	63,993	14,000	5,936	8,064	*21.9*	*9.3*	*12.6*
1939......	68,500	.. ...	5,416[d]		....	*7.9*	....

[a] National income is for calendar years, while taxes are for fiscal years ending June 30.

[b] So many different figures have been presented under the heading of "national income" that it is necessary to explain what the present series represents. For 1929-38 the figures are as estimated and reported by the U.S. Department of Commerce for "income produced." (Latest revisions. See *Survey of Current Business*, June 1939, p. 11; February 1940, p. 3.) Prior to 1929 the figures are estimates intended to approximate the same types of income as are included in the Department of Commerce figures. They are based on estimates of "income from current production" presented in *America's Capacity to Consume*, p. 152 (The Brookings Institution). Since the income estimates are rough approximations—particularly for the years prior to 1929—precision cannot be claimed for the annual percentages shown in the final column of the table; however they clearly indicate the general trend.

[c] Figures for 1913-37 from Lewis H. Kimmel, *Cost of Government in the United States, 1935-37*, National Industrial Conference Board, Inc., p. 30; for 1938 from *Conference Board Economic Record*, Aug. 31, 1939, p. 75.

[d] *The Budget of the United States Government, 1941*, pp. xx, xxii.

The expanding volume of taxes and the increasing percentage of the national income absorbed affects investment in two ways. First, it reduces the supply of funds available for investment. Such an effect is important only when the aggregate supply of investment money is relatively scarce. As has been shown in Chapter II, this condition does not exist at the present time—though with a great expansion of economic activity in the future it might again become important. The second effect upon investment arises from the bearing of increasing expenditures upon the budget and the growth of the public debt. Discussion of this phase of the problem is reserved to Chapter XIV.

II. CORPORATION TAXES IN RELATION TO CORPORATE INCOME

In this section we shall consider the growth of those forms of taxes which are levied directly on business corporations. The analysis is based on the income accounts of a selected group of large corporations in various divisions of industry. It includes, first, federal taxes and, second, state and local government levies. It should be borne in mind that some forms of taxes, such as customs duties, may not be included since they are not paid directly by the company but are included in the cost of materials.

A. Taxes in Relation to Gross Income

One means of revealing the burden of corporate taxation is by comparing the amount of taxes with the gross income, since it is out of gross income that taxes as well as other costs are met. It is sometimes argued that, inasmuch as some types of corporation taxes may be passed along to the consumer in the form of higher prices, they constitute no real burden to the corporation. It is clear, however, that in so far as taxes are added to the price to consumers, the volume of sales and hence gross income would be reduced. Thus a comparison of gross income with taxes would still roughly indicate the burden.

In the table on page 274 we present, for a group of selected successful companies, federal taxes, and state and local taxes in relation to gross income for selected years from 1923 to 1937. The number of companies included in various categories, except railroads, is indicated in the table.

The percentage of gross corporate income absorbed in taxes has progressively increased. This is true for every group of companies

TAXES AS PERCENTAGE OF GROSS INCOME[a]

Classification	1923	1926	1929	1932	1935	1937
RAILS (Class I roads)[b]						
Federal taxes	1.16	1.60	1.33	0.35	0.67	1.64
State and local taxes	3.91	4.21	4.64	7.86	5.76	5.78
Total taxes	5.07	5.81	5.97	8.21	6.43	7.42
UTILITIES						
1. Traction (5 cos.)						
Federal taxes	0.87	1.46	0.78	0.72	1.06	1.46
State and local taxes	5.05	4.78	4.47	4.83	6.38	7.66
Total taxes	5.92	6.24	5.25	5.55	7.44	9.12
2. Light and Power (8 cos.)						
Federal taxes	2.86	3.91	3.27	2.82	3.89[c]	5.69
State and local taxes	5.31	6.00	6.26	8.39	8.79	8.97
Total taxes	8.17	9.91	9.53	11.21	12.68	14.66
3. Gas (8 cos.)						
Federal taxes	2.00	2.38	2.09	2.23	2.02	2.15
State and local taxes	5.62	6.19	7.15	8.72	8.98	10.12
Total taxes	7.62	8.57	9.24	10.95	11.00	12.27
4. Water (6 cos.)						
Federal taxes	3.32	3.40	2.81	2.46	3.67	4.51
State and local taxes	12.13	12.42	13.01	14.47	14.93	17.32
Total taxes	15.45	15.82	15.82	16.93	18.60	21.83
5. Telephone (8 cos.)						
Federal taxes	1.64	2.30	2.23	2.23	2.41	3.58
State and local taxes	5.22	5.62	6.27	7.38	7.63	9.01
Total taxes	6.86	7.92	8.50	9.61	10.04	12.59
INDUSTRIALS						
1. Motors (3 cos.)						
Federal taxes	...	..	1.58	0.65	3.70	4.18
State and local taxes	...	...	0.68	1.85	0.57	0.95
Total taxes	...	...	2.26	2.50	4.27	5.13
2. Iron and Steel (5 cos.)						
Federal taxes	...	1.15	1.26	0.13	0.85	2.68
State and local taxes	...	2.10	2.11	7.37	3.36	2.25
Total taxes	...	3.25	3.37	7.50	4.21	4.93
3. Elec. Equip. (3 cos.)						
Federal taxes	...	2.32	2.41	0.19	2.61	4.21
State and local taxes	..	0.95	0.83	1.99	1.58	2.22
Total taxes	...	3.27	3.24	2.18	4.19	6.43
TRADE—CHAIN STORES (7 cos.)[c]						
Federal taxes	...	1.03	0.67	0.34	1.06	1.50
State and local taxes	...	0.67	0.63	1.07	1.41	1.72
Total taxes	...	1.70	1.30	1.41	2.47	3.22
MINING (6 cos.)						
Federal taxes	...	3.89	3.98	0.76	3.76	5.59
State and local taxes	...	3.11	2.79	10.64	3.72	3.10
Total taxes	...	7.00	6.77	11.40	7.48	8.69

[a] The basic data for this table are given in App. D, pp. 402-03.

[b] Excludes switching and terminal companies.

[c] Data for 1936 are based on five companies; for all other years, on seven.

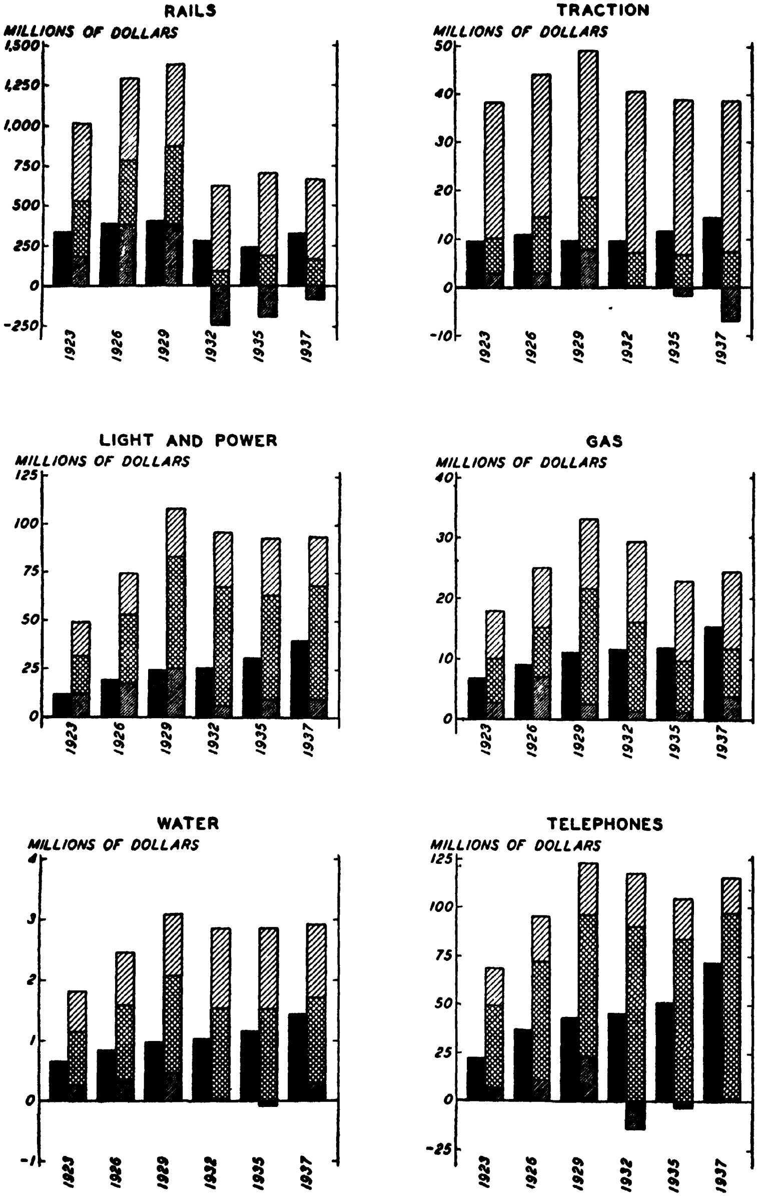
shown in the table. In the case of railroads total taxes absorbed from 5 to 6 per cent of the income in the twenties and about 7.5 per cent in 1937—the best revenue year since the depression. The percentage increase was considerably greater in all of the other classes of corporations.

One of the most interesting facts brought out in the table is the marked variation in the burden of taxation in the different groups. In 1937, for example, the chain stores show the smallest percentage of taxes in relation to gross income, namely, 3.22 per cent. This is attributable in part to the fact that real estate and other fixed property investments—which bear relatively high taxes—are small in relation to the volume of business conducted. It is also partly attributable to the fact that in consequence of the large "turnover" the *gross* income is large in relation to the *net* income, on which the federal tax is assessed. At the other extreme are the water companies, which contribute 21.83 per cent of their income in the form of taxes. This high proportion is obviously due to their very heavy fixed capital investment and to the low ratio of gross to net income.

In concluding this discussion, it should be emphasized that the data given relate in the main to large successful corporations. The burden of taxes, particularly the state and local levies, is naturally much more onerous for corporations having deficits and also for those showing only moderate or occasional profits—because the taxes which fall on property and capital values continue irrespective of earnings.

B: Taxes in Relation to Distributable Income

Inasmuch as the cost of materials, wages, and other operating expenses, depreciation, etc., are paid out of gross incomes, a further comparison is essential to show the relationship between taxes and the income available for distribution to investors. In the diagrams on pages 276-77 we show, for the same groups of corporations and the same years covered in the preceding table, the amount of taxes as compared with the amount of net income after taxes have been paid. In turn, the taxes are divided into federal, and state and local, while the distributable net income is divided among interest, divi-



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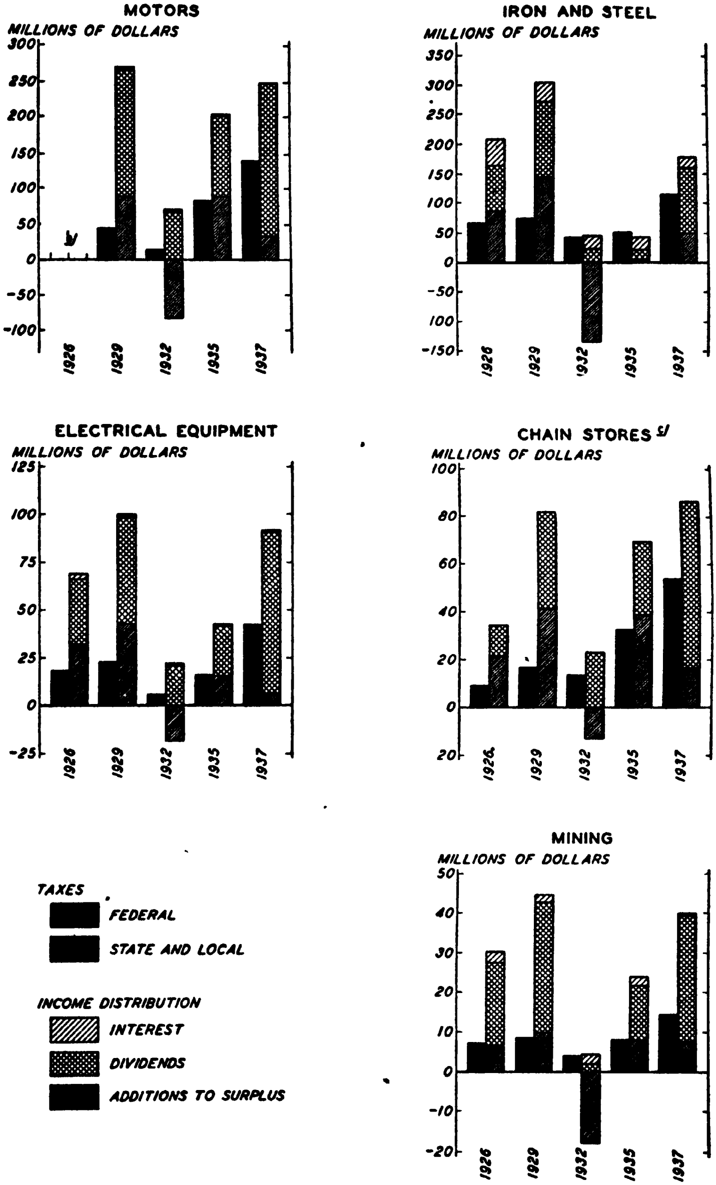
[a] For data, see App. D, pp. 402-03.
[b] Data not available.

LECTED SUCCESSFUL CORPORATIONS, 1923-37[a]



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[c] Interest included in cost of goods sold. Figures for 1926 are for five companies; for all other years, seven companies.

dend payments, and the amounts carried to surplus. In cases where dividends or interest are paid out of surplus the deficit is shown below the base line.

The ratio of taxes to distributable income has greatly increased. This is true of every group of corporations. Moreover, the diagrams show that net income available for distribution was lower in 1937 than it was in 1929, while the taxes were appreciably higher. This trend has naturally affected payments of interest and dividends. In 1937 such disbursements were in most cases considerably below the level of 1929, and in some cases they were below the level of 1926. The notable exceptions are telephone companies, motors, electrical equipment, and chain stores. Such increases in taxes have usually been at the expense of additions to surplus.

There has been a striking downward trend in the amounts carried to surplus. In every case the amount carried to surplus shows a sharp decline since the late twenties. In 1937 the amount retained as surplus was affected by the imposition of the undistributed profits tax. The business recession of 1937-38 of course affected the volume of net earnings available either for surplus or dividends. It should be borne in mind, however, that net income is affected quite as much by the volume of business as by the weight of taxation; hence taxation policy cannot be held entirely responsible for the decrease in the amounts carried to surplus.

The general significance of the growth of taxation upon corporate net income and upon the accumulation of surplus for capital expansion is not, of course, fully disclosed by the figures taken from *successful* corporations. If all corporations be taken into account, the situation appears much less favorable. For corporations which are little more than breaking even, the tax burden has become of serious import. Moreover, the burden has been increasing since 1937; and the possibility of still further increases is ever-present.

III. SPECIFIC TAXES AFFECTING CORPORATIONS

In this section we shall discuss the principal forms of taxes which are levied directly upon corporations. The taxes to be considered include: (1) the corporation income tax; (2) social security taxes; (3) undistributed profits taxes; and (4) capital stock and excess profits taxes. The relative importance of these taxes in relation to total federal taxes in the fiscal year 1938 is shown by the following figures (in millions of dollars):

Corporation income (and undistributed profits) taxes	1,145.6
Social security taxes (including carriers' taxes)	754.5
Capital stock and excess profits taxes	175.9
Excise, sales, and minor taxes	1,715.9
Customs revenues	359.2
Personal income taxes	1,189.0
Estate and gift taxes	416.9
Miscellaneous	276.4
Total	6,033.4

We cannot here enter into a detailed discussion of the many forms of state and local taxation. It must suffice to note that there is an increasing number of state corporation income taxes. It should also be recalled that in addition to various forms of business taxes almost all of the states have a general property tax. This tax is based on the capital value of the property of the corporation. In depression this tax is onerous because the valuation remains much the same and there is a tendency to raise the rate to meet the increased government requirements, particularly for relief. Thus the corporation, with decreased income or perhaps a deficit, still has to pay the same or higher taxes. To meet the growing financial requirements of recent years a large number of states and cities have levied taxes on sales, the burden of which is passed along to the consumer.

The federal government in recent years has imposed new forms of corporation taxes and also introduced many changes in rates and in methods of calculation. Some of these changes were made with a view to preventing evasions and eliminating abuses which became apparent during the early depression years. Others are explained by the desire to obtain additional revenues from existing taxes and to tap new sources of income. Still others, notably the undistributed profits tax, had economic reform as well as financial objectives in mind.

The result has been to give us an extremely complex tax structure, involving inequities, unanticipated hardships for certain classes of corporations, and a system of administration costly for both government and business. There is thus needed a readjustment of the present tax system—irrespective of the question as to the volume of tax revenue that may properly be expected from corporations.

In the following analysis of specific taxes affecting corporations, we shall be chiefly concerned with provisions which are rather obviously open to serious question. It will be necessary in each case to present a brief summary of the development of the present provisions of the law.

A. The Corporation Income Tax

This tax is one of the mainstays of the federal government. In all but a few years, recently, it has brought in more revenue than the personal income tax. It is a more equitable tax than the state and local tax based on capital value, since if the corporation has no income it pays no tax.

The rate levied on corporation incomes has progressively increased over the last 15 years. In 1924 it was 12.5 per cent; in 1926, 13.5 per cent; in 1928, 12.0 per cent; in 1929, 11.0 per cent; in 1930, 12.0 per cent; in 1932, 13.75 per cent; in 1935, 12.5 to 15.0 per cent; in 1938 the maximum was raised to 16.5 per cent, and in 1939 to 18.0 per cent. The present rate applies on incomes over $25,000. Below $25,000 the rates are lower, scaling down to 12.5 per cent. Thus from 1929 to 1939 the maximum rate of tax on corporate income was raised over 50 per cent.

The tax burden has been increased by various means other than rate changes. These are briefly summarized in the following paragraphs:

1. *Elimination of credit to small corporations.* In 1924, and before, a credit of $2,000 was granted to corporations with income of $25,000 or less. In 1928, the credit was increased to $3,000. The Revenue Act of 1932 abolished the credit. Thus since 1932 the small corporations, the group greatly interested in building up their assets from earnings, have been forced to pay the tax on $3,000 more than was formerly the case. It should be noted, however, that a lower *rate* is levied on the smaller corporate incomes.

2. *The refusal to permit consolidated returns.* From 1918 to 1934 affiliated groups of corporations, such as those controlled by a holding company, were allowed to file consolidated returns by

paying an additional tax (three-fourths of 1 per cent by the act of 1932, increased to 1 per cent in 1933). Since 1934 the railroad groups, only, have been allowed to file consolidated returns. In addition to revenue considerations, the purpose of refusing to permit consolidated returns was to make it more difficult for large business organizations of the parent or holding company type to take credit for "fictitious" losses.

The present system, however, often unfairly penalizes large corporations grouped under a holding company. A single unified corporation can subtract losses in one part of the business from the profits of other parts, but an affiliated group has to pay on the full amount of the profits without any deduction for the losses. An illustration of how this works out in practice is afforded by the experience of the United States Steel Corporation in the year 1938. The corporation as a whole had a deficit of $7,717,000, yet it was forced to pay federal income taxes amounting to $2,930,000 because certain of its subsidiaries showed profits.

3. *The taxation of intercorporate dividends.* This provision, like the preceding one, has adverse effects upon affiliated groups of corporations as compared with single corporations. Until 1935, with unimportant exceptions, there was no tax on dividends paid by a company to the corporation which controlled it. The assumption was that since the operating company had already paid a tax on its earnings a second tax, on the dividends, was inequitable. The Revenue Act of 1935, however, included in the amount on which the holding corporation must pay an income tax, 10 per cent of the dividends received from operating companies. The acts of 1936 and 1938 raised the proportion to 15 per cent of the intercorporate dividends.

4. *The elimination of the deduction of previous operating losses.* From 1921 to 1932 net operating losses could be carried forward for two years to be subtracted from later gains. In 1932, the privilege was limited to one year, and in 1933 abolished entirely. Beginning January 1, 1940, net operating losses may again be carried forward for a 2-year period. This provision affected adversely corporations with fluctuating incomes. Thus a corporation which over a period of five years had $750,000 of gains and $250,000 of losses—a net

gain of $500,000—would pay more tax than one with a gain of $500,000 spread evenly over the 5-year period.

Industries which are forced to carry heavy inventories are particularly susceptible to this sort of adverse effect, for their gains or losses from ordinary operations may be more than offset by inventory losses and gains. Or the two may act in the same direction. Thus a company in depression may have both an operating loss and an inventory loss, and when prosperity returns the operating gains may be increased by inventory gains. In such a case a company is hard hit. Thus suppose a company has an inventory of $10,000,000. Depression reduces this to $5,000,000, so there is an inventory loss of $5,000,000. Now if prosperity returns and the inventory increases to $10,000,000 again, the company must pay an income tax on the $5,000,000 gain in the inventory, although from the standpoint of the company there has been no real gain—merely a recovery from the previous loss.

5. *The restriction of the deduction of capital losses.* For a long time, capital gains of corporations were fully taxable and capital losses fully deductible. Capital losses could be carried forward to offset later capital gains. In 1932, capital gains were still taxed, but losses from securities held two years or less could be deducted only from gains arising from like transactions. Other capital losses were fully deductible and could be carried forward one year. The carryover privilege was repealed in 1933. Later acts taxed capital gains of corporations in full, but allowed deductions of losses only to the extent of $2,000 over the capital gains.

The act of 1938 was more liberal and allowed capital losses to be deducted in full, with the exception of losses on the sale of securities and of land. However, the relief came too late to ease the strain which had occurred. Losses on securities and land could be deducted only to the extent of $2,000 in excess of gains. The result was that many corporations had to pay corporation income taxes for years in which they showed losses, if both operating and capital transactions were included. There could also be discrimination as between corporations: one might have capital gains on certain transactions and escape paying a tax because it had capital losses from other transactions, which could be used as offsets; another might have no offsetting losses.

The act of 1939 contains a provision, effective January 1, 1940, which removes the $2,000 limitation on long-term losses for all corporations, except domestic and foreign personal holding companies. Where the assets have been held less than 18 months, losses may be deducted only from capital gains realized during such a period, but any excessive loss (not more than net income) may be deducted from the short-term capital gains of the ensuing year.

There is also a provision in the act of 1939 relating to inventory accounting. This provision is intended to help equalize earnings over the period of a business cycle by minimizing the big fluctuations which have come from changes in inventory valuations. This should result in eliminating some of the losses which were the result of former methods of accounting.

6. *Stricter regulation of depreciation charges.* Since 1935, the Treasury Department has maintained closer supervision of allowances for depreciation in order to prevent tax evasion by excessive charges. The tendency is for the amount of the allowance for depreciation to be based on a more or less uniform rate of physical deterioration—without adequate allowance for the varying degrees of wear and tear in periods of very active and of very dull business, and also without adequate regard for the factor of obsolescence. Ultimately, the rate of depreciation may seem to be of no great importance—for if insufficient allowance has been made for depreciation there will be a loss to be deducted when the property is abandoned. Thus the company will have paid more taxes in earlier years and less in the last year. Such a practice may, however, mean that in some years a corporation is thrown into a higher income bracket. Moreover it makes it difficult to charge more heavily in periods of very active business when the actual wear and tear may be great and to charge less in periods of business when both the physical depreciation and the ability to charge heavily are less. Corporations should be allowed to make adjustments in the light of fluctuating conditions.

Recommendations on Corporation Income Tax

The following modifications of the corporation income tax structure would eliminate inequitable features, provide greater simplicity and flexibility in administration, and be directly helpful to certain types of corporations in raising capital:

1. Permitting integrated corporations to file consolidated returns.
2. Abolishing the tax on intercorporate dividends.
3. Restoring the credit of $3,000 formerly allowed to small corporations.
4. Disregarding capital gains and losses in calculating the tax; or at least permitting deduction of capital losses if capital gains are taxed as income. The provision of the 1939 act does not go far enough in this direction.
5. Permitting greater flexibility in the handling of depreciation charges, allowing the percentage to be varied in relation to the volume of business and profits. That is to say, deviations should be allowed from the average rate which is deemed desirable.
6. Allowing deductions from income for reserves for various contingencies. To prevent the use of this provision for evading taxation, the government might be permitted to disallow any reserve deemed excessive. It should also be provided that if the reserve were not used for the purpose named, it should become taxable income.

The first two of these modifications are suggested chiefly in the interest of equitable treatment of the various types of corporations. The third, as indicated, is intended to ease the tax burden upon small corporations. The fourth and fifth are of particular significance in connection with companies—whether large or small—which have meager or widely fluctuating income. The present provisions directly affect the ability of such corporations to accumulate surplus and also to attract funds in the capital market. An incidental benefit would lie in the economies resulting from the simplification of the tax structure.

B. Social Security Taxes

The unemployment insurance and old age annuity features of the social security program involve taxes on business enterprise. The tax is levied against all ordinary businesses; but agriculture, domestic service, and religious, charitable, and educational establishments are excluded. In the case of unemployment insurance any business which employs less than eight persons is excluded; for the old age annuities there is no lower limit.

The rates established in the social security law are as follows: For unemployment insurance the tax is 1 per cent in 1936, 2 per cent in 1937, and 3 per cent annually thereafter—levied on the total payroll. The workers do not contribute to this tax. The administration of the unemployment insurance is in the hands of the states. If they have laws which meet the minimum standards set up by the federal government, the states are granted the right to have their taxes used as an offset up to 90 per cent of the taxes collected within their borders and to get grants from the federal government toward the expenses of administering the system. The federal government holds the money until it is requisitioned by the states. It is placed in government bonds or special government obligations.

For the old age annuities the tax is not levied on the total payroll, but excludes wage disbursements above $3,000 per employee. Both employees and employers contribute to this tax; both pay 1 per cent in 1937 to 1939 inclusive. Under the original act, the rate was to be increased one-half of 1 per cent every three years until a maximum rate of 3 per cent was reached in 1949. But the act of August 1939 postponed the increase from 1 to 1½ per cent for a 3-year period—that is, until 1943. In the case of the contribution of the worker, the employer acts as an agent of the government in collecting the money. The administration of this tax is in the hands of the federal government.

There has been much discussion as to whether the employer can shift the burden of the payroll taxes. The answer to the question depends upon the degree of elasticity in the demand for the product. In some instances it might in the long run be fully passed on to consumers in the form of higher prices; in other cases it may mean either a reduction in wages or a decrease in profit margins. Whatever may be the long run outcome in given cases, there is nearly always an immediate burden on the employer. In periods of depression, little shifting is possible.

The burden of payroll taxes affects different industries quite unequally. Such taxes, of course, apply both to companies which have net earnings and to companies which have losses. Even among those which have net earnings, they represent a varying burden, since payrolls differ widely in importance from industry to industry. In the service industries, for example, the proportion of payrolls to the value of the product is typically much greater than is the case in manufacturing. Moreover, there is a substantial variation in different types of manufacturing enterprise. In the case of companies which are in a strong financial position, these taxes may perhaps readily be absorbed; but in the case of companies having meager financial resources—and these include a substantial proportion of those operating in the service industries—the burden, as the tax rates increase, would undoubtedly be oppressive. Many companies might well be forced out of business. In any case, it is clear that the tax tends to work against small-scale as compared with large-scale enterprise.

The unemployment insurance part of social security requires no great accumulation of reserves. It is based on the theory that over the span of a business cycle the receipts, with interest accumulations, should be sufficient to cover disbursements to the unemployed. The excess of receipts over disbursements in prosperous years would be available to meet the deficiency in years of depression. The degree to which the system will be automatically self-sustaining will of course depend upon the accuracy of the judgment as to cycle movements used in establishing the rates.

It was unfortunate that the establishment of the system happened to coincide with a period of acute depression, which could not be ignored in the establishment of the rates. It is unfortunate, also, that the depression has proved to be so protracted that a reduction of rates is impracticable. It is already apparent that the expectations as to business trends on which the system was based are not likely to be fulfilled. Hence, the burden of these taxes is likely to be greater than had been anticipated.

The primary criticism of the old age annuity scheme relates to the accumulation of a huge reserve. Instead of raising each year only such amounts of revenue as might be necessary to provide for the aged, the present plan proceeds on the assumption that society as a whole should make advance provision for the future. It is recognized that the number of persons eligible to receive old age pensions—irrespective of the growth of population—will increase as the years pass, and it was thought desirable to avoid the necessity of higher rates in the future by making current rates high enough to accumulate a reserve sufficient to make a flat rate eventually adequate. The plan calls for annual receipts in excess of disbursements until 1980. Thereafter—assuming the calculations are correct—receipts and disbursements would be equal.

The working out of this reserve plan involves the contribution, by eligible employees and their employers, of such yearly sums as will, along with the interest thereon, pay the beneficiary his annuity when he reaches the eligible age for retirement. These accumulations are "invested" in federal government obligations yielding at least 3 per cent return. If outstanding government bond issues do not yield such a rate, special obligations yielding 3 per cent are issued for the purpose. By the end of December 1938 the government had issued 2 billion dollars of such obligations (for old age, unemployment, and retirements), and these were turned over to the Social Security Board in lieu of cash collected from the social security taxes. The government is, of course, obligated to pay interest on these bonds to the Social Security Board. These bond accumulations are called reserves, and it is estimated that by 1980 the accumulation would reach nearly 50 billion dollars.

Under existing procedures the payroll taxes are used for operating expenses of the government. Neither cash nor revenue producing assets are being provided by the taxes. Thus the accumulating obligations under the social security plan will have to be met by further taxation in the future. Such a development was not contemplated originally. It was assumed that the budget would be balanced and that the social security taxes could be used to reduce the existing government debt, thereby lessening the government's obligations, if not accumulating cash or other assets. The persistence of the deficit has meant that such a program could not be carried out.

The net effect of the payroll taxes to date has thus been to provide the government with some revenue and to keep the federal deficit a little lower than it would otherwise have been. As a method of raising money for the general expenses of the government, it is highly inequitable in its operation. A part of it falls on the low income classes, and that which is collected from corporations is not levied with reference to their ability to pay. As we have seen, it bears heavily on small corporations.

If there were a balanced budget and the social security taxes were being invested in outstanding government bonds, the reserve, so to speak, would be in the form of decreased government liabilities rather than in the form of increased assets. It is apparent in any case that the so-called reserve is not analogous to that maintained by ordinary insurance companies which do not invest in their own obligations or create new IOU's, the payment of which would involve increased collections in the future from those insured.

A pay-as-you-go plan would greatly ease the burden in the earlier years. The principle of such a plan is that only enough revenue should be raised each year to meet the old-age obligations of that year. It recognizes that the rates would have to rise so long as the proportion of old people in the population increases. This procedure is justified on the ground that it gives relief from immediate pressing tax burdens without *necessarily* increasing the tax burden in the future. That is to say, if the per capita income should rise over the next 30 or 40 years the rising rates would be neutralized.

It will be seen that such a plan would obviate the problem of investing a huge reserve. It would merely involve raising such amounts of social security taxes as are necessary to take care of current payments and to provide the modest reserves necessary to care for possible emergencies. This means a few billion dollars at the most.

The inauguration of this plan should be accompanied by the adoption of the principle of investing the modest contingent reserves that would be accumulating in outstanding government obligations. This implies an abolition of the present system of guaranteeing a 3 per cent return on the "reserve" in the form of government obligations delivered to the Security Board; the earnings on the investments should be determined by money market conditions at the time of purchase rather than arbitrarily set at a fixed minimum rate which may come to be out of line with market yields. This plan of actually investing the tax accumulations in outstanding bonds necessarily means that the social security taxes cannot be used to meet Treasury deficits. In short, this analysis implies a segregation of the administration of the social security program from the ordinary financial operations of the government.

Under the pay-as-you-go plan we would not need to have nearly as high rates in the early years as under the present plan. The rates would start at a low amount and would increase in proportion to the increased age of the groups affected. Instead of reaching a maximum rate of 6 per cent in 1949, it would not be necessary to reach the maximum until after 1980. The maximum rate, however, would ultimately have to exceed 6 per cent.

The precise rates that should be levied at the present time are in some measure a matter of expediency. In view of the fact that a considerable reserve has already been accumulated, the rates during the next two or three years may be maintained at an extremely low level in the interest of easing present tax burdens and stimulating recovery. Having regard to the difficult problems with which certain industries, and small business enterprises in particular, are confronted, we would suggest a rate schedule for the old age annuities as follows: a reduction from 1 per cent to one-half of 1 per cent from both employer and employee until it can be ascertained whether an increase is necessary in order to provide for the obligations which begin in 1942. This proposal offers more relief during a difficult period than that afforded by the mere postponement of the increase for three years as provided in the act of August 1939. At the same time it affords greater flexibility in adjusting rates in the light of developments.

Recommendations on Social Security Taxes

The following modifications of the social security tax system are suggested:

1. The old age annuities should be financed on a pay-as-you-go basis rather than by the accumulation of a huge reserve.
2. The rates for the old age annuities should be temporarily reduced from 1 to one-half of 1 per cent; and be subsequently increased only as benefit payments necessitate.
3. The modest contingent reserves should be invested in outstanding government bonds at current rates; and the financial administration of the system should be segregated from the fiscal operations of the Treasury.

C. The Undistributed Profits Tax

The undistributed profits tax, authorized in 1936, was directly related to capital expansion. In fact, it was intended to reduce the total supply of funds available for capital development, especially in the form of undistributed earnings. The plan was to force the disbursement of earnings by penalizing their retention. Once distributed among shareholders, a portion of the income would be spent for consumptive purposes, thereby reducing the supply of investment money. Incidentally, it was argued by some that a sounder allocation of funds for purposes of capital expansion would result if corporate managers, instead of being able to make direct investments out of surplus, were forced to obtain the funds in the investment market where the proposed expansion would be subject to independent appraisal.

This levying was also intended to promote equity in taxation. It was alleged that high personal income taxes were avoided by virtue of the fact that many corporations refrained from paying the bulk of their earnings out as dividends, using them instead to build up surpluses which not only escaped personal taxation, but gave the managers of corporations undue financial power.

Experience with the undistributed profits tax proved so unsatisfactory that it was greatly modified by the Revenue Act of 1938. In the light of further experience, the remnant of the act was repealed in 1939—effective for corporation returns subsequent to December 31, 1939.[2]

D. Capital Stock and Excess Profits Taxes

These taxes are linked together because neither would work satisfactorily independently. The capital stock tax is a tax levied on the value of the capital stock, and the excess profits tax is levied on earnings beyond a certain percentage on the capital stock. Since the administrative task of determining the true value of the capital stock is extremely difficult, the law permits the corporation to set its own value for the purpose of this tax. It is obvious that at a given tax rate it is desirable for the corporation to place a low value on its stock. The levying of an excess profits tax circumvents such undervaluation for the simple reason that the lower the valuation the higher would be the burden of the excess profits tax. Looking at the matter the other way around, if the capital stock is overvalued in order to escape the excess profits tax, then the capital stock tax will be high. It is hoped that the effect of the two taxes in combination will lead to the setting of fair valuations on the capital stock.

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[2] For a full discussion of the practical operation of this tax, see M. Slade Kendrick, *The Undistributed Profits Tax,* The Brookings Institution (pamphlet series), 1937.

It will be seen that it is assumed that the value of the capital stock does not change appreciably. However, if there should be a long period of depressed conditions or technical changes which affect the industry adversely, or, on the other hand, if there should be a war boom or a great period of prosperity, there would be marked changes in the value of the stock. Thus the valuation declared by the company may accurately reflect present conditions, or it may attempt to forecast future trends and earnings. In recognition of this problem the Revenue Act of 1939 permits corporations to increase the valuation of their capital stock for the years ending June 30, 1939 and June 30, 1940. However, flexibility was not provided, since permission was not given to decrease valuations.

The rates laid down by the Revenue Act of 1938 are: one-tenth of 1 per cent for the capital stock tax, and 6 per cent on net income between 10 and 15 per cent on the declared capital value, and 12 per cent on net income over 15 per cent of the declared capital value. In the fiscal year 1937 the yield of the capital stock tax was 137.5 million dollars, and of the excess profits tax 25.1 millions. The total for the two, 162.6 millions, may be compared with the yield of 894.3 millions of the corporation income tax for the same year.

The capital stock tax, like any other property tax, has to be paid whether there are any earnings or not. Of more moment is the fact that the burden of the tax paid by any corporation will vary with the shrewdness of the management's guess with respect to future trends. If the guess has been very conservative with respect to future earnings, the valuation will be low; and if a period of prosperity ensues the excess profits tax will be very high. Contrariwise, if large earnings were anticipated which did not materialize, the capital stock tax would be high and the excess profits tax negligible. The net result in any given case will thus depend largely upon the guess, or hunch, of the corporation's management.

Such a pair of taxes in the nature of the case will not yield revenues in proportion to ability to pay, as measured either by current income or property values. Moreover, they seriously complicate the tax accounting problem both for corporation officials and for the staff of the Treasury. We would therefore favor the discontinuance of this pair of taxes as a permanent part of the taxation machinery. In any case, an annual declaration of value should be permitted.

In the event of war, the excess profits tax could and should be converted into a war profits tax. This is because the essence of war is sacrifice; and no group should expect to profit as a result of the exigencies of war-time demands.

IV. PERSONAL TAXATION

Several features of the personal tax system have a direct bearing upon the investment market. These features pertain: first, to the high rates on personal incomes, the various ways in which the base has been widened, and the treatment of capital gains and losses; second, to the gift and estate taxes; and, third, to tax exemption provisions with respect to government issues of various kinds. Before attempting to show the significance of these various taxes and tax exemption to the investment market, it will be necessary to present briefly the facts with reference to each.

A. Summary of Principal Provisions of the Law

1. *The personal income tax.* The burden of the personal income tax has become heavier through the increase in both the normal and the surtax rates and by various changes in methods of calculation which result in taxing more of the income.

The *normal rate* in 1930 was 1½ per cent on the first $4,000 of taxable income, 3 per cent on the next $4,000, and 5 per cent on the balance. In 1932 and 1933 the rate was 4 per cent on the first $4,000 of taxable income, and 8 per cent on the balance. Since 1934, the normal rate has been a flat 4 per cent. This was not a reduction, since the surtaxes starting with 4 per cent were applied to the taxable income above $4,000.

The *surtax rates* in 1931 began at 1 per cent on net incomes in excess of $10,000 and rose to 20 per cent on net incomes in excess of $100,000. In 1932, the surtaxes began with 1 per cent on net incomes in excess of $6,000 and rose to 55 per cent on incomes over $1,000,000. In 1934, they started with 4 per cent on net incomes over $4,000 and rose to 59 per cent on net incomes over $1,000,000. In 1936 they began with 4 per cent on net incomes over $4,000 and rose to 75 per cent on net incomes over $5,000,000. These rates are continued in the act of 1938.

From 1925 to 1931 married couples were given a *personal exemption* of $3,500, and single persons a personal exemption of $1,500. Since 1932, these exemptions have been reduced to $2,500 and $1,000 respectively.

In the acts of 1924, 1926, and 1928, an *earned income credit* of 25 per cent was granted. This credit was eliminated in 1932. It was restored in 1934 but lowered to 10 per cent and the maximum amount allowable reduced. At present not more than $14,000 may be counted as earned income.

There is now *double taxation of dividends.* Up to 1936, income from dividends had always been exempt from the normal tax. Because the corporation has already paid a tax on its earnings from which the dividends arise, it seems fair to exempt the dividends from the normal tax. Since 1936 these dividends have been taxed again as income to the individual.

The weight of the income tax has been increased by the method of handling *capital gains* and *losses.* American legislators have always insisted that capital gains are taxable income; but they have not always been willing to allow the deduction of capital losses. These losses were allowed until the act of 1932, since which time they have been accorded progressively less favorable treatment. This change was primarily the result of the abnormal losses from 1929 to 1932 which made it possible for wealthy individuals largely, if not wholly, to escape personal taxation in given years. This anomaly, coupled with the insistent need for revenue, seemed to necessitate drastic restrictions on allowance for capital losses.

Some of the laws made a difference in the taxableness of capital gains and losses depending on the length of time the capital asset had been held. Thus from 1924 to 1932 the dividing line was two years. Gains and losses from assets held less than two years were taxable and deductible in full. On those held over two years the taxpayer had the option of paying 12½ per cent as a tax or deducting 12½ per cent as a loss. In the act of 1932, losses from the sale of stocks and bonds held less than two years could be deducted only from gains from the same source. The Revenue Act of 1934 took into account 100 per cent of the gains and losses on assets held less than one year and, by steps, only 30 per cent where the asset had been held over ten years. However, capital losses were allowed only to the extent of the capital gains and $2,000 additional.

RATES OF THE ESTATE AND GIFT TAXES

Net Estate or Net Gift	Rate on Amount of Estate (Per cent)	Rate on Amount of Gift (Per cent)
$ 0–$ 10,000	2	1½
10,000– 20,000	4	3
20,000– 30,000	6	4½
30,000– 40,000	8	6
40,000– 50,000	10	7½
50,000– 70,000	12	9
70,000– 100,000	14	10½
100,000– 200,000	17	12¾
200,000– 400,000	20	15
400,000– 600,000	23	17¼
600,000– 800,000	26	19½
800,000– 1,000,000	29	21¾
1,000,000– 1,500,000	32	24
1,500,000– 2,000,000	35	26¼
2,000,000– 2,500,000	38	28½
2,500,000– 3,000,000	41	30¾
3,000,000– 3,500,000	44	33
3,500,000– 4,000,000	47	35¼
4,000,000– 4,500,000	50	37½
4,500,000– 5,000,000	53	39¾
5,000,000– 6,000,000	56	42
6,000,000– 7,000,000	59	44¼
7,000,000– 8,000,000	61	45¾
8,000,000– 9,000,000	63	47¼
9,000,000–10,000,000	65	48¾
10,000,000–20,000,000	67	50¼
20,000,000–50,000,000	69	51¾
Over 50,000,000	70	52½

The act of 1938 extends to 18 months the time when gains or losses are counted 100 per cent (it had been one year previously). It is no longer possible to deduct $2,000 for losses in excess of short-term gains. However, short term losses (not greater in amount than the net income) may be carried over one year. Long-term gains and losses are those on assets held over 18 months. If the asset has been held between 18 and 24 months, two-thirds of the gain or loss is considered; if held over 24 months, 50 per cent of the gain or loss is considered. Long-term losses may be deducted from any kind of income. Alternative methods of calculation are provided which calculate the tax without the gains and losses, and then 30 per cent of the gain is added or 30 per cent of the loss is subtracted. In the case of gains, the alternative method is taken if it is less. In the case of losses, the alternative method is taken if it is greater.

2. *Gift and estate taxes.* In a sense these taxes are alternatives. A person may give away his wealth before he dies or bequeath it in his will. As a result of legislative patchwork the computation of the estate tax is extremely complicated. We cannot go into the complexities of calculating the taxes under one law with a certain exemption and then under a later law with a lower exemption and with allowances for the first tax, for state taxes paid, and for gift taxes paid. However, the table on page 294 of rates applied to the net estate or the net gift will show the extent of the rate progression.

B. Effects of Personal Taxes on Investment

In this section we shall consider taxation as it affects the attitude of individuals toward investment. While any increase in taxes naturally cuts down the aggregate amount available for investment, this effect is not of great importance at a time when there is an abundance of available investment money. (See pages 272-73.) The significance of high personal taxes at the present time is found chiefly in the way they influence the *direction* of investment. Our analysis has shown (see pages 159-60) that the great need is for investments in stock, or equity securities. Yet at many points the taxation system penalizes such investment.

High surtax rates on personal incomes tend to drive investment out of stocks into high-grade bonds. Many concrete illustrations of this effect have come to our attention. However, it is unnecessary to cite specific illustrations; the inevitable result is clearly indicated by an analysis of the effects of tax rates upon the yield that can be secured from stock investments by individuals on various levels of income.

We may illustrate the working of the tax in connection with incomes of $50,000, $100,000, and $150,000. Under the present law, if an individual having an income of $50,000 were to obtain from a new stock investment an additional income of $1,000, he would be taxed 35 per cent on the extra $1,000; if his income were $100,000 he would be taxed 62 per cent on an additional $1,000; and if he had an income of $150,000, he would be taxed 64 per cent on an additional $1,000 of income. (The maximum tax rate is 75 per cent.) The following table shows the reduced yields in connection with an additional $1,000 of dividend receipts to investors at three levels of income. The computations are given for various dividend rates.

Dividend Rates	$50,000	$100,000	$150,000
4 per cent	2.60 per cent	1.52 per cent	1.44 per cent
6 " "	3.90 " "	2.28 " "	2.16 " "
8 " "	5.20 " "	3.04 " "	2.88 " "
10 " "	6.50 " "	3.80 " "	3.60 " "
15 " "	9.75 " "	5.70 " "	5.40 " "
20 " "	13.00 " "	7.60 " "	7.20 " "

It is evident from this table that individuals with incomes of $100,000 and up must get a dividend yield of 10 per cent or more on their stock holdings in order to receive an effective return above 3.5 per cent. It is obvious that the degree of risk involved is excessive as compared with the effective return that can be expected. In short, the return is analogous to a rate of interest on high-grade bonds, while the risk is that involved in essentially speculative ventures.

The treatment of capital gains and losses strengthens the disinclination to invest in equities. One of the principal reasons for buying equities is to realize a profit from their appreciation in value. Of course there is an accompanying risk of loss. In recent years the government has taxed the gains but would not allow the deduction of losses, except as an offset against gains, and to a limited amount. Thus such investments have been made less attractive.

The effect of present tax rates and the method of treating capital gains and losses are especially serious in the case of equity investment in new enterprises. This is because practically all new businesses must pass through a developmental period of several years in which earnings are at best meager and losses are likely to be the rule. Moreover, such losses, as we have seen, cannot be carried forward for more than two years.

High estate taxes also work against stock purchases. In theory, most taxes are supposed to be paid from income. But obviously in the higher brackets it would be impossible to pay estate and gift taxes from income. As a result the executors often have to sell securities in order to pay the tax. The owner of the estate will probably think it desirable to anticipate such payment by holding enough liquid securities to meet the estate tax. He will know that real estate is often practically unmarketable. He will hesitate to put his funds in common stocks, not because they are unsalable, for frequently they have an active market, but because of their wide fluctuation in price. If his death came at a time when stock prices were low, the provision made for the tax might be entirely inadequate.

The most desirable investment to hold in order to anticipate the tax payment would probably be short-term government issues. We may be sure that the necessity for providing large sums of money for an estate tax tends to promote the purchase of bonds rather than stocks, and government bonds rather than corporate issues.

The suggestion is sometimes made that life insurance should be used to provide the money for estate taxes, since the policy provides funds whenever death occurs without the necessity of selling any securities. There is merit in the suggestion when applied to small estates where the amount of the tax is not large. However, in the case of large estates, say over $10,000,000, it is not so helpful, for the policy adds to the size of the estate: 60 per cent would be used up in meeting the added liability and only 40 per cent would be available to meet the tax on the original estate.

The law offers a very real threat to closely held businesses of large size. The necessity of raising a large amount of cash to pay the estate tax may force the sale or liquidation of the business. If the business is in corporate form it may result in a loss of control by the heirs.

C. The System of Tax Exemption

In explaining the development of the system of tax exemption, it is necessary that we distinguish between the tax exemption of a government's own securities, and tax exemption between state and federal governments.

Before the days of state income taxes, it was a fairly common practice for a state to provide that all its state and local bond issues in the hands of its citizens should be exempt from the general property tax which was the source of most state and local income. The reason for the practice was quite simple. It was argued that it was much easier to sell the bonds at a low rate of interest because they were tax free than to sell them at a higher rate of interest and then collect the tax from the holders of the bonds. As a matter of strict theory it was urged that it was a matter of indifference if the state issued a 5 per cent bond and took 2 per cent as a tax or issued a 3 per cent bond which was tax free. In practice, it did not work out so exactly. The spread between the yield on taxable and tax-free bonds was somewhat less than the tax, owing to the refusal of some people to report their holdings and pay taxes on them.

The problem in this form did not arise for the federal government until the income tax was levied and the surtaxes came to be important. Thus, the bonds of the First Liberty Loan were made exempt from all federal taxes except the estate taxes, and the bonds of the Second Liberty Loan were made exempt from the normal income tax but not the surtaxes. The present situation is that the income on $5,000 of United States obligations is exempt from the normal tax, but not the surtax, and the short-term obligations are wholly tax exempt, as are the obligations of the Federal Farm Loan system.

Tax exemptions, as between state and federal governments, arose from the view that taxation should not be used for purposes of hampering the activities of another government agency. The Supreme Court early decided that in our present form of government the states could not interfere with the federal government by taxing its instrumentalities or the salaries of its officials, and that the federal government could not interfere with the state governments by taxing their agencies and employees. This reasoning, however, failed to distinguish between taxation for ordinary fiscal purposes and taxation levied for purposes of discrimination.

The issue here involved has finally been clarified, as far as salaries are concerned, by two recent decisions of the Supreme Court. It was held in the New York Port Authority case that the federal government had power to tax a salary paid by a state agency; and it was held in the Home Owners Loan Corporation case that a state may tax the salary of a federal government employee. These decisions opened the way for universal income taxation without the necessity for a constitutional amendment. However, there have been no recent decisions with respect to the reciprocal rights of federal and state governments to tax the income from each others' *bonds.*

The effect of the elimination of the tax exemption of state salaries from the federal tax and of federal salaries from the state tax is obvious. It has made possible a material increase in income tax revenues by both the federal and the state governments—at the expense of groups who have hitherto occupied a favored position. By an act approved April 12, 1939 the federal government collects an income tax on salaries of state and local officials received after January 1, 1939 and permits states to collect an income tax on the salaries of federal officials after that date.

1. *Effects of the tax exemption system.* In order to understand how the system of tax exemption from the federal income tax affects the direction of investment, it is necessary to give a concrete illustration. The table on page 300 shows what the tax means in the way of equivalent yields for those with incomes of various levels.

The system of tax-exempt securities is a strong deterrent to equity financing. As high surtaxes repel investment in equities involving substantial risks, so tax exemption invites investment in bonds involving a minimum of risk. In short, we provide an investment haven for those who would otherwise be subject to exorbitant taxes. The table on page 300 indicates that if a man has an income of $300,000 to $400,000, a 5 per cent return on a taxable security would net him, after payment of the federal income tax, the same amount as a 1½ per cent municipal bond which is tax free. It would take a yield of 6.67 per cent on a taxable security to net him as much as a 2 per cent municipal bond. It would take a yield of 8.33 per cent on a taxable security to yield him as much as a 2½ per cent municipal bond, and it would take a 10 per cent yield on a taxable security to equal the yield on a 3 per cent municipal bond.

COMPARISON OF TAXABLE AND TAX-EXEMPT INVESTMENTS FOR THOSE WITH INCOMES OF VARIOUS SIZES[a]

If taxable income is:	Municipal bonds bearing:			
	1½ per cent	2 per cent	2½ per cent	3 per cent
	are equivalent to taxable securities with a percentage yield of:			
$ 10,000–$ 12,000	1.69	2.25	2.81	3.37
12,000– 14,000	1.71	2.27	2.84	3.41
14,000– 16,000	1.73	2.30	2.87	3.45
16,000– 18,000	1.77	2.35	2.94	3.53
18,000– 20,000	1.81	2.41	3.01	3.61
20,000– 22,000	1.85	2.47	3.09	3.70
22,000– 26,000	1.90	2.53	3.16	3.80
26,000– 32,000	1.95	2.60	3.25	3.90
32,000– 38,000	2.00	2.67	3.33	4.00
38,000– 44,000	2.09	2.78	3.47	4.17
44,000– 50,000	2.18	2.90	3.62	4.35
50,000– 56,000	2.31	3.08	3.85	4.62
56,000– 62,000	2.46	3.28	4.10	4.92
62,000– 68,000	2.63	3.51	4.39	5.26
68,000– 74,000	2.83	3.78	4.72	5.66
74,000– 80,000	3.06	4.08	5.10	6.12
80,000– 90,000	3.33	4.45	5.55	6.66
90,000– 100,000	3.66	4.88	6.10	7.32
100,000– 150,000	3.95	5.26	6.58	7.90
150,000– 200,000	4.17	5.56	6.95	8.33
200,000– 250,000	4.41	5.89	7.35	8.82
250,000– 300,000	4.69	6.25	7.81	9.38
300,000– 400,000	5.00	6.67	8.33	10.00
400,000– 500,000	5.36	7.15	8.93	10.71
500,000– 750,000	5.77	7.70	9.63	11.54
750,000–1,000,000	6.25	8.34	10.40	12.50
1,000,000–2,000,000	6.53	8.70	10.87	13.05
2,000,000–5,000,000	6.81	9.10	11.38	13.62
Over 5,000,000	7.14	9.53	11.90	14.28

[a] Memorandum from Finance Department of the Chamber of Commerce of the United States.

It would obviously be impossible to get such high yields on safe securities. We may show how it affects different kinds of investments. According to the Standard Statistics indexes for 1938, obtained by averaging the 12 monthly figures, the yield on 15 municipal bonds was 2.91 per cent; on 15 public utility bonds, 4.80

per cent; on 15 industrial bonds, 5.07 per cent; on 20 industrial preferred stocks, 5.17 per cent; and on 15 railroad bonds, 8.37 per cent. A study of the table will show that, in comparison with municipal bonds, a taxpayer with an income of $56,000 could not afford to invest new money in public utility bonds; that a taxpayer with an income of $62,000 could not afford to invest new money in industrial bonds or industrial preferred stocks; and that a taxpayer with an income of over $200,000 could not afford to invest in railroad bonds.

The proportion of tax-exempt securities tends to increase with the size of estates. This tendency is clearly indicated in the following table covering 1927, 1931, 1935, and 1937. In considering the figures for the later years we must remember that stock prices were lower in these years than in 1927, and that this tends to increase the portion of the amount going to the tax-free bonds. In 1935, municipal bonds, which are the chief form of tax-free bonds, sold at somewhat higher prices than in 1927 and 1931. This change in price would also tend to increase the percentage in tax-free bonds. In connection with the classification "over $4,000,000" the small number of cases introduces an element of uncertainty as to whether the results are really typical. There were 41 estates in this group in 1927; 63 in 1931; 11 in 1935; and 25 in 1937.

PERCENTAGE OF TAX-EXEMPT SECURITIES IN ESTATES[a]

Size of Estate	1927		1931		1935		1937	
	Federal	State and Local	Federal	State and Local	Federal	State and Local	Federal	State and Local
$100,000– 200,000	3.83	2.22	2.85	2.48	4.83	5.31	5.02	5.45
200,000–2,000,000	3.79	4.45	3.30	5.48	6.69	9.36	5.11	8.41
2,000,000–4,000,000	4.50	7.82	3.49	6.80	6.17	21.39	7.20	15.35
Over 4,000,000	4.72	5.52	4.21	11.08	3.74	4.85	9.60	10.03

[a] Bureau of Internal Revenue, *Statistics of Income* for 1926, 1930, 1934, and 1936. Federal bonds include both partially and wholly tax-exempt bonds.

There is, however, one important case where federal securities are used to escape state taxes. Some states still tax security holdings under a general property tax. The tax may be as high as 2 per cent of the capital value, which would be equivalent to an extremely high income tax. Often the assessment is on the basis of holdings on a given day, so prudence suggests that on that day one's holdings should be federal securities which are exempt from the tax.

As the state income taxes increase in number and have higher rates, the exemption of federal securities becomes more important. With the growth of governmental functions an increasingly large group of people have been exempt from state taxes on their income if they work for the federal government and from federal taxes if they work for the state and local governments.

2. *Should tax-exempt securities be eliminated?* The preceding discussion has clearly shown that the existence of a large volume of tax-exempt securities makes it possible for individuals of large means to offset in part the effects of high surtaxes. The elimination of the tax-exempt securities has been officially suggested as a device for making the surtax rates more effective. It has also been shown that the system cuts down the supply of funds available for equity financing; and this is advanced as an added argument in favor of a modification of the system. The problems involved must be considered both with respect to existing tax-exempt securities and future issues.

A retroactive law would produce such serious repercussions that it would be wholly inadvisable. If the tax advantage in holding such securities ceased to exist, many individuals would immediately wish to shift to other securities; and the result would be a precipitate decline in the prices of tax-exempt government issues. The fall would probably be greatest in the case of state and local issues, since their prices have been more influenced by the tax exemption feature than have the prices of the tax-exempt federal issues. This is because the federal income tax carries higher surtax rates than do the state income taxes.

The decline in the prices of existing tax-exempt securities would adversely affect not only wealthy individual holders but would have serious consequences upon banks and other institutional investors. However attractive the proposal to eliminate all tax-exempt securities may be from the standpoint of federal revenue, the adverse consequences to the economic system as a whole would doubtless far outweigh the revenue gains that would result.

As applied to future issues the abolition of tax exemption appears desirable. The effects would be very different than in the case of a retroactive law. The increase in revenue to the government would for some time be relatively small because the amount of the new issues, the interest on which is taxable, would be small. There would be no losses to existing holders of tax-exempt securities as a result of declining values; on the contrary, competition for the existing tax-exempt issues would tend to raise their prices, thereby bringing gain to present holders. There would be a tendency for wealthy investors to buy up the tax-exempt issues now owned by institutions.

It must be borne in mind, however, that the abrogation of tax exemption in the future would increase the cost of borrowing for municipalities and other government agencies issuing tax-exempt securities. In the view of some, this is a consideration of controlling importance. It is pointed out that the credit of many municipalities is none too satisfactory and that an increase in the cost of borrowing might make it impossible for them to float issues in the future. In any case, higher local taxes would be necessary to sustain the credit of municipalities.

Granting the truth of this contention, it does not follow that the system of tax exemption should be continued. The fact that many municipalities are in a difficult financial position, because they have hitherto borrowed too much or have inadequate tax resources, does not lead to the conclusion that they are entitled to a subsidy. Why should not municipalities, like other borrowers, expect to stand on their own financial feet—without a credit subsidy? The issue with respect to tax exemption should be decided in terms of the effects upon the economy as a whole.

It would seem that the gains from the point of view of stimulating a flow of funds into productive capital enterprise would outweigh the possible immediate difficulties from the point of view of municipal credit. As already indicated, however, the immediate gains would not be important from the standpoint of investment because the amount of such issues would in the nature of the case be relatively small.

In any event, since the constitutional issue has not been decided, a possible modification of the tax-exempt system is not of immediate practical significance.

D. Summary on Personal Taxation

The present personal tax system has affected investment in a curious and wholly unexpected way. Its significance is to be found not in its effect upon the *total volume* of investment money, but in the way it influences the *direction* which investment takes. The very high surtax rates, together with the system of tax-free bonds, work strongly against the sale of corporate securities, particularly equities, to those whose incomes fall in the high brackets. Taken in conjunction with the income tax regulations with respect to capital gains and losses, they place almost insuperable obstacles in the way of risk-taking investments.

The simple explanation of this situation is that the chance of gain in stock investments in new enterprises is slight, while on the other hand an inducement is offered to place funds in the most conservative type of securities. In other words, on the one hand we close the door to new enterprise, and on the other we offer a haven of refuge. We discourage creative activities and place emphasis upon the conservation of existing assets. The result is to check economic expansion and progress—without, it should be observed, in the long run ensuring the preservation of existing values.

Before leaving this discussion of stock or equity financing, brief mention must be made of possible sources of funds other than large individual investors. Corporate surpluses obviously provide funds for capital expansion; but they are in general wholly inadequate.[8] Another possible source is the savings of the masses of small investors. The bulk of such investments are made indirectly —through life insurance companies and savings institutions. Since the investments of these institutions are controlled by state laws which, with minor exceptions, prohibit investments in stocks, such savings are not at present available for equity financing.

Recommendations on Personal Taxes

In the light of the analysis which we have made, we offer the following recommendations:

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[8] See analysis in Chap. VII.

1. The surtax rates in the upper brackets should be substantially reduced.
2. The normal income tax on corporate dividends should be eliminated.
3. Capital gains and losses should be disregarded. In any case, if capital gains are taxed, deductions for capital losses should be allowed.

V. BROADER IMPLICATIONS OF THE TAX PROBLEM

In concluding this discussion of taxation in relation to investment we feel it necessary to emphasize again the limitations of the analysis and also to direct attention to some of the broader aspects of the problem under consideration.

We must repeat what was said at the beginning of the chapter, namely, that we have been concerned primarily with those features of the tax system which serve to impede the investment process. We have made no attempt to estimate the extent to which the various recommendations which have been made would reduce current taxation receipts, or to suggest other taxes which would presumably make good the deficiency. The view that any immediate reductions in tax receipts that might result must be directly compensated for by an increase in other tax rates, or the levy of new taxes, represents a static conception of the problem. If an elimination of hampering taxes serves to stimulate the expansion of private enterprise, the increase of tax revenues in the not distant future might more than offset any immediate revenue losses. It is our view that such would be the case—though it is obviously impossible to prove the matter statistically. In any event, it is obvious that reductions of the kind suggested above *might* readily be offset by increases in the rates of other taxes.

The full significance of the present tax system from the point of view of investment has not as yet manifested itself. This is because the volume of equity security offerings has for a number of reasons been comparatively small in recent years. However, once general confidence is restored and the way opened for business expansion on a large scale, our taxation policies would operate to restrict equity financing in a serious way.

If financing business expansion through the sale of stocks is in large measure precluded as a result of the taxation system, such future financing as is undertaken would have to be in the form of bond issues, which would mean increasing the proportion of corporation capital that represents debt. Inasmuch as it is generally regarded as desirable to prevent corporate debt from becoming so large as to threaten insolvencies in periods of business depression, some modification of the existing tax system appears to be an imperative necessity.

The recommendations for a substantial reduction in the surtax rates in the upper brackets and the modifications suggested in the existing system with respect to capital gains and losses are designed to promote equity financing. If carried out, these recommendations would encourage a shift in the direction of investment—from bonds to equities. It is of course apparent that it would also increase somewhat the total amount of funds available for investment. This latter consideration is of no significance at the present moment because the supply of investment funds greatly exceeds current offerings of securities. It is venturesome money that is wanting; and this is directly related to the system of taxation.

The suggested reductions in taxes outlined above would obviously accrue directly to the benefit of those in the higher income classes; and for this reason many would no doubt be inclined to oppose such changes. But if our analysis of the bearing of present tax policies upon recovery and capital expansion is correct, the benefits will shortly accrue to the nation as a whole. An expansion of capital enterprise is the only means whereby the unemployment problem can be solved and the present onerous burden of relief lifted. It is, moreover, the only means by which standards of living can be progressively increased as the years pass.

In the development of our present tax system over the years, we have had in mind other problems than its relation to investment and new capital formation. We have been concerned with such matters as administrative simplicity and ease of collection, the equitable distribution of the tax burden, the redistribution of national income, and the promotion of other economic and social objectives. The situation with which we are now confronted with respect to the flow of funds into new enterprises is of such fundamental importance that a reorientation of our thinking is essential.

A choice must be made between an arrested flow of funds into new capital enterprise—which halts economic progress and perpetuates stagnation—and a modification in the system of taxation, even if such modification appears to run counter to current conceptions with respect to the achievement of a better distribution of wealth and income through the medium of the tax machinery. It should be borne in mind in this connection that a sounder distribution of wealth and income can be promoted by other means than taxation.[4]

The primary need at this time—outweighing every other consideration—is the stimulation of capital expansion. Modifications in the tax system along the lines which we have indicated constitute one of the important means of accomplishing the desired end.

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[4] Some of these have been considered in *Income and Economic Progress*, published by the Brookings Institution.

CHAPTER XIV

THE SIGNIFICANCE OF PUBLIC CREDIT OPERATIONS

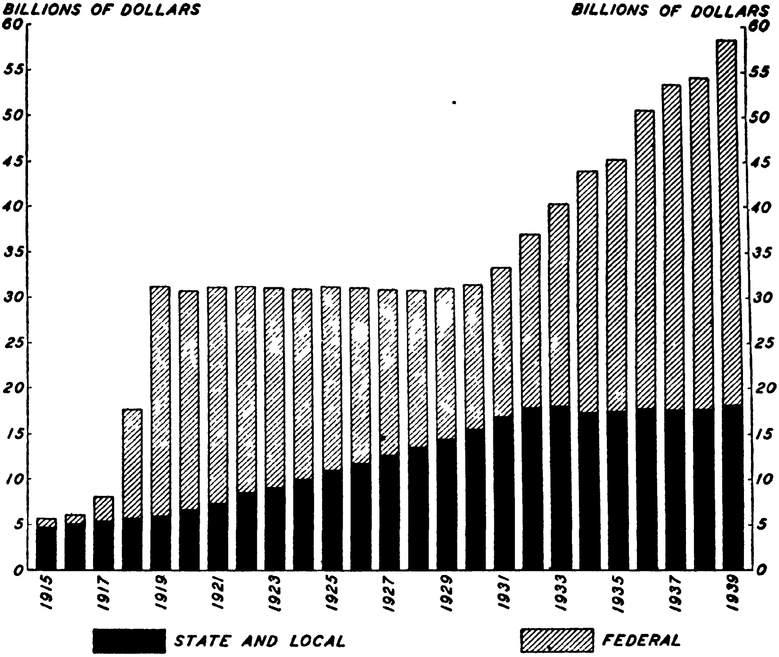
The economic dislocations and developments of the last ten years have had a profound influence upon conceptions with respect to the role of government credit in the economic life of the nation. The reservoirs of public credit have been relied upon to quench the fires of depression, to furnish relief for unemployed individuals and distressed business enterprises, and to stimulate general economic recovery. In the performance of these functions more than a score of governmental credit agencies have been developed, the operations of which have come to have far-reaching influence upon the financial and credit structure of the country. In the view of many, moreover, public credit must in the future be relied upon to take up the "permanent slack" in the system of private enterprise —in short, to provide work for a permanent army of unemployed and also outlets for otherwise idle investment funds. The purpose of this chapter is to present a brief review of recent developments in the field of public credit and to indicate their bearing upon the expansion of private business enterprise.

I. GROWTH OF THE PUBLIC DEBT

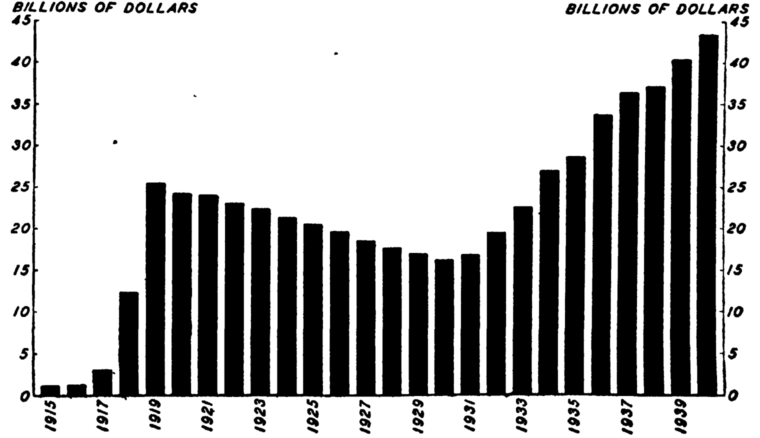
The diagrams on page 309 show the growth of public indebtedness in the United States since the beginning of the World War period. The upper diagram shows the expansion of all public indebtedness—federal, state, and local—from 1915 to the end of the fiscal year 1939—the latest date for which state and local government data are available. The lower diagram shows the cumulative effects of federal government deficits upon the debt of the national government from June 30, 1915 to June 30, 1940.

State and local government debt has remained practically stationary in recent years. It should be pointed out here that such indebtedness has in the main not been incurred as a result of ordinary operating deficits. It is largely attributable to the development

GROWTH OF ALL PUBLIC INDEBTEDNESS, 1915-39[a]



GROWTH OF FEDERAL DEBT, 1915-40[a]



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[a] *Annual Report of the Secretary of the Treasury, 1939*, pp. 421, 476, 509, 511. State and local figures are total outstanding issues less those held in sinking funds.

of enterprises deemed socially important, such as schools, and school buildings, roads and streets, rapid transit, water front and harbor improvements, and sewerage facilities. Some of these enterprises are revenue producing.

From 1915 to 1933 there was a continuous increase—from 4,682 millions to 18,100 millions. Since that time there has been little change—a slight decline in the middle thirties being followed by a moderate increase in the last two or three years. The failure of state and local debts to increase in the thirties is attributable to the curtailment of local public enterprises and the transfer of functions and responsibilities to the federal government.

Since 1930 the federal debt has increased 280 per cent and is now 70 per cent above the World War peak. As a background for discussion of the federal debt it may be noted that between 1865 and 1915 the gross public debt of the federal government declined from 2.7 billion dollars to 1.2 billions. The debt might have been entirely eliminated except for the fact that it was deemed desirable to maintain a certain amount of indebtedness in order to provide government bonds as security for national bank notes. It should be noted, too, that the figure of 1.2 billions included not only the interest-bearing debt but also about 350 million dollars of non-interest-bearing United States notes (greenbacks) and Treasury notes of 1890.

The financial exigencies of the World War served to increase the debt from 1.2 billion dollars in 1915 to a maximum of 26.6 billions—as of August 1, 1919. In the ensuing decade there was a progressive decrease until a post-war minimum of 16 billions was reached on December 31, 1930.

As the chart indicates, the increase has been continuous since 1930, with a rate of advance quite as rapid in recent years as during the period of acute depression. The Treasury's preliminary estimate indicates a gross direct debt of 43.2 billions at the end of the fiscal year 1940, though for reasons discussed elsewhere the actual figure on a basis comparable with 1939 may be somewhat larger.[1]

1. *Contingent liabilities.* The foregoing figures for the federal

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[1] See discussion, pp. 322-23.

debt do not take account of contingent liabilities which the government has incurred, especially in recent years in connection with its efforts to prevent insolvencies and to stimulate recovery. In certain *contingencies* these would become actual obligations. As a rule, these contingent liabilities are of an indirect character; that is to say, they are the obligations of agencies set up distinct from the government proper, but functioning under financial procedures defined and restricted by federal statutes. On June 30, 1939, the total amount of government-guaranteed obligations outstanding was 6,736 million dollars.[2]

The extent of the potential contingent liabilities under present laws cannot be precisely determined. This is because of the indefinite character of some of the loan authorizations. Attention should also be called to the fact that, as a practical matter, the United States government has assumed a moral responsibility for the safety of bank deposits and for investments in Federal Savings and Loan Associations. While these deposits and investments are insured by special insurance corporations, the funds are not on an actuarial basis; hence the ultimate security rests in considerable measure on the general credit of the government. The reserves are, moreover, invested in government securities.[3]

The extent to which these contingent liabilities will become actual liabilities will depend in part upon the degree of business revival in the next few years and in part upon trends in the particular fields where these contingent liabilities are concentrated, namely, farm mortgages and urban home mortgages. In both cases the margin of underlying values is conceded to be meager. It is precisely because the underlying security is inadequate that government underwriting of the risks has been deemed essential.

2. *Assets of the federal government.* The federal government also possesses various types of assets, some of which have a bearing upon the fiscal situation. The government's assets consist of three principal types: (1) public buildings and other property directly utilized

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[2] Secretary of the Treasury, Letter of Transmittal Accompanying Report to U. S. Senate pursuant to S. Res. 150, 76 Cong. 1 sess., Feb. 10, 1940.

[3] See p. 322.

RECONSTRUCTION FINANCE CORPORATION ACTIVITIES, 1932–39[a]

Purpose	Disbursements	Repayments and Other Credits[b]	Balance Outstanding
For benefit of agriculture	1,446,284,760	1,414,958,458	31,326,302
To open banks to meet demands of depositors	1,138,217,337	1,060,626,324	77,591,013
For distribution to depositors in closed banks	983,701,788	920,580,062	63,121,726
For bank capital (including Export-Import Banks)	1,146,590,662	562,558,630	584,032,032
For self-liquidating projects (including PWA municipal securities)	741,744,404	457,826,219	283,918,185
To business enterprises	160,595,495	49,697,449	110,898,046
To drainage, levee, and irrigation districts	85,600,433	3,204,792	82,395,641
To railroads (including receivers and trustees)	826,773,161	346,509,316	480,263,845
For loans to and capital of mortgage loan companies (including $25,000,000 capital The RFC Mortgage Co. and $11,000,000 capital Federal National Mortgage Association)	418,662,964	298,016,329	120,646,635
For loans to and capital of insurance companies	125,168,210	95,374,562	29,793,648
To building and loan associations (including receivers)	118,221,783	116,255,022	1,966,761
To public schools	22,450,000	22,301,000	149,000
Catastrophe rehabilitation loans	12,003,055	9,546,494	2,456,561
To state funds for insurance of deposits of public moneys	13,064,631	13,064,631	...
For mining, milling, and smelting businesses	4,179,700	1,531,252	2,648,448
For other purposes	614,814	514,489	100,325
Total—by directors of Corporation	7,243,873,197	5,372,565,029[b]	1,871,308,168
Allocations and loans to other government agencies and for relief by direction of Congress	2,801,096,178	2,753,398,603[c]	47,697,575
Grand total	10,044,969,375	8,125,963,632[b]	1,919,005,743

[a] From Reconstruction Finance Corporation, *Seven-Year Report*, p. 22.

[b] Includes $25,111,268 credited on indebtedness for property taken over for debt.

[c] Includes $2,699,236,946 cancellation of Corporation's notes pursuant to Act of Congress approved Feb. 24, 1938.

in the conduct of ordinary government operations; (2) public parks, waterways, lands, and so forth, constructed or acquired in pursuit of general public policy; (3) various loans and investments acquired by the Treasury in connection with advances to government corporations and credit agencies.[4]

From a fiscal viewpoint, the government's assets are less significant than its contingent liabilities. The first two types, with minor exceptions, do not yield any revenue; and they could not well be liquidated. The Panama Canal derives revenues from tolls, but other waterways yield no revenues; on the contrary they involve large annual expenses for maintenance and upkeep. The same is true of public parks, monuments, etc., and also of military establishments. Public buildings used by the government save office rent; and in this sense may be regarded as productive. However, they do not provide revenues available for reducing the government debt. Since the cost of most of these enterprises has been charged against taxation revenues, they have not been formally capitalized.

The third group represents, in some measure, realizable assets which may be counted as offsets to government obligations. By far the most recoverable of these investments are those made through the Reconstruction Finance Corporation. Complete operations of the Reconstruction Finance Corporation from the time of its establishment to February 2, 1939 are shown in the table on page 312. It will be seen that a large part of the Reconstruction Finance Corporation advances have been repaid. It should be noted in this connection that a reduction of about 2.7 billions was required because in the earlier years loans from the Reconstruction Finance Corporation to other governmental agencies had been carried as assets (see table footnote c). Among the loans to private enterprise much the largest repayments have been made by financial institutions. A substantial part of the purchases of securities from the Public Works Administration has also been paid off. Given full recovery, it is reasonable to assume that the larger part of the obligations now outstanding will be repaid. In connection with this favorable repayment record, it should be noted, however, that a considerable part of the funds received has not been used by the Reconstruction Finance Corporation to reimburse the Treasury, but has been allocated to other purposes.

The book value of the Treasury's proprietary interest in government corporations and credit agencies as a whole amounted on June 30, 1939 to 3,284 million dollars.[5] Included among the assets of these government institutions, however, are loans to numerous agencies for relief purposes extended to sectors of the economy which are still so deeply distressed as to make substantial repayments unlikely. Another Treasury asset which must be included in the picture is the exchange stabilization fund of 1.8 billion dollars which was derived from the devaluation of the dollar.

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[4] See p. 320.

On the whole, it would seem clear that from the standpoint of prospective revenues and disbursements the government's potential assets are less important than the contingent liabilities which have been assumed. The public or social benefits associated with the growth of government assets is a separate question.

3. *The interest burden.* A striking feature of the fiscal situation has been the relatively slow growth of the interest burden. Notwithstanding a very rapid rise in the total debt in the years 1934-36, the amount of the interest charges remained stationary, and even during the last three years the increase in the interest burden has by no means kept pace with the rise in the debt. The extent of the difference between the growth of the debt and the increase in interest charges may be seen by comparing the upper diagram on page 315 with the lower diagram on page 309.

The explanation of the retarded rate of increase in interest charges is to be found in declining rates of interest. In 1929 the average interest rate on the government debt was 3.95 per cent. In 1933, it was 3.35 per cent, and by 1936 was down to 2.56. In 1939 it was 2.60 per cent. It would almost seem as though the credit of the government is in inverse ratio to the magnitude of the public debt—the greater the debt the lower the rate of interest.

This phenomenon has been a source of much confusion and has beguiled many into the belief not only that the financial position of the government is as sound as the proverbial rock but that the wells of public credit are inexhaustible. The primary explanation, as indicated in earlier chapters, is the extraordinary volume of loanable

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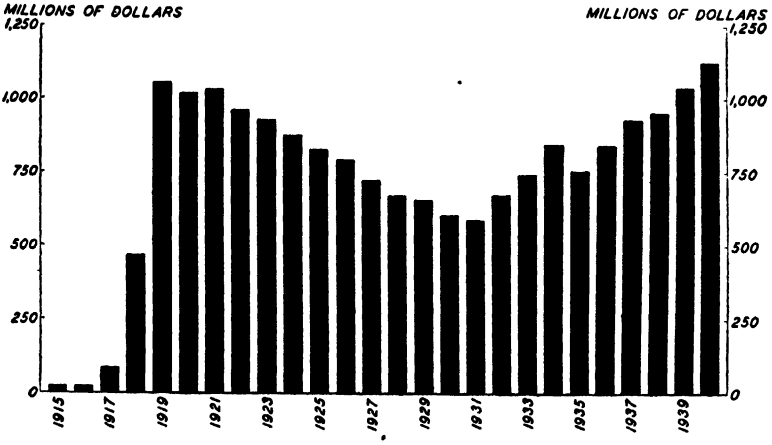
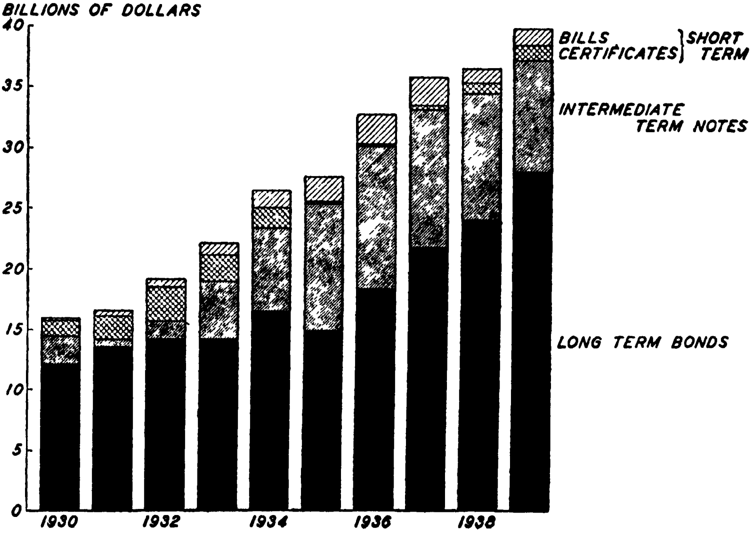
[5] Secretary of the Treasury, Letter of Transmittal Accompanying Report to U. S. Senate pursuant to S. Res. 150.

INTEREST CHARGES ON THE FEDERAL DEBT, 1915-40[a]



INTEREST-BEARING FEDERAL DEBT, CLASSIFIED, 1930-39[a]



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[a] Data from Annual Reports of the Secretary of the Treasury. "Computed annual interest charges" are used since they give a more accurate index for momentary comparison of interest with principal than the actual interest disbursements, which commonly involve a lag. The figure for 1940 is an estimate.

funds, on the one hand, and the lack of normal investment outlets on the other.

The reduction in the average rate of interest is also attributable in part to a major shift from long- to short-term borrowing. The changing character of the interest-bearing debt since 1930 is revealed in the lower diagram on page 315. It will be seen that much the larger part of the expansion has been in the form of short-term debts, which include Treasury bills or certificates having maturities of less than 12 months and intermediate-term notes running from one to five years. The rate on the 1- to 5-year notes averages about 1.5 per cent, and that on the short-term obligations about ½ of 1 per cent.

The amount of the interest charge in the future—aside from the size of the debt—will depend upon two factors: (1) the general trend of interest rates; and (2) the extent to which the intermediate- and short-term indebtedness is funded on a long-term basis. A resumption of demand for investment funds on the part of private enterprise would result in a gradual increase in rates of interest generally, both on long-term and short-term obligations. Thus the rate at which the government could borrow, either on the basis of long-term bonds or intermediate notes and Treasury certificates, would rise. Increasing demand for ordinary commercial bank loans, as an accompaniment of the increase in general business activity, would similarly affect the rate at which the government could place its short-term obligations.

If the federal debt is to be consolidated and placed upon a permanent basis, it is essential that a considerable proportion of the 5-year notes and short-term bills and certificates be converted into longer-term issues. While no definite principle can be laid down as to the proportion of the total debt that might remain more or less permanently in the form of low-rate short-term obligations, it obvious that funding operations would raise the interest cost considerably above present levels.

These potential developments indicate the danger of assuming that the interest burden will continue to lag behind the increase in debt. Once genuine business prosperity, accompanied by a large flow of funds into private capital investment, is achieved, the interest burden will rise relatively to the debt.

II. DEVELOPMENT OF GOVERNMENT CREDIT AGENCIES

The financial exigencies of the past decade have resulted in the organization of a large number of government financial agencies which extend credit for a wide variety of purposes. The table on page 318 gives a list of United States government corporations and credit agencies now in existence, including, for purposes of completeness, three which were organized prior to 1929. The table shows the total of the loans which had been made up to June 30, 1939 and the repayments to the same date.

It will be seen that these agencies had extended credits to the amount of nearly 25 billion dollars, of which approximately one-third, or 8.5 billion dollars, had not as yet been repaid. The outstanding capital stock of these agencies amounts to approximately 3.3 billion dollars, of which the federal government or its agencies own about 2.3 billions. They have issued bonds, debentures, and notes aggregating approximately 8 billion dollars, of which roughly 2 billions are owned by the United States government or its agencies.

Some of these government credit institutions were conceived as permanent parts of the American financial system. Others were organized to meet the difficult problems arising in the depression years 1929-33, and they undoubtedly served a constructive purpose in tiding distressed enterprises and sectors of the economy over a very difficult period. Still others, organized since 1933, were designed not only to cope with emergency needs but also to facilitate the administration's program of economic and social reform, and they have come to be regarded as more or less permanent in character. Some of them have already been given permanent legal status.

Many of these agencies compete, actually or potentially, with private financial agencies. This is particularly true of the agricultural credit institutions and of some of the housing agencies. It is also to a considerable extent true of the Public Works Administration and the Reconstruction Finance Corporation, as well as of smaller agencies such as the U. S. Maritime Commission, and the Export-Import

Bank of Washington. Competition is made effective in part by lower interest rates, made possible by cheap government credit, and in part by assuming risks which are impossible for private lending

LOANS AND REPAYMENTS OF UNITED STATES GOVERNMENT CORPORATIONS AND CREDIT AGENCIES FROM DATE OF ORGANIZATION TO JUNE 30, 1939[a]

Name of Agency	Year of Organization	Total Loans Made to June 30, 1939	Total Repayments to June 30, 1939
Federal Land Banks	1917	$3,082,686,293	$1,142,100,217
Federal Intermediate Credit Banks	1923	4,254,754,043	4,024,242,175
Inland Waterways Corporation	1924	1,409,447	939,763
Agricultural Marketing Act Revolving Fund[b]	1929	1,208,106,862	1,118,228,737[c]
Federal Home Loan Banks	1932	523,023,390	354,061,827
Reconstruction Finance Corporation	1932	7,521,804,742	5,652,533,237
Regional Agricultural Credit Corporation	1932	326,896,466	316,660,998
Banks for Cooperatives	1933	432,807,541	373,231,013
Commodity Credit Corporation	1933	964,053,603	604,910,844
Emergency Crop and Feed Loans[b]	1933	443,240,947	263,676,083
Federal Deposit Insurance Corporation	1933	76,990,894	17,062,820
Federal Savings and Loan Associations	1933	...	...
Home Owners' Loan Corporation	1933	3,340,138,014[d]	1,259,626,261
Public Works Administration	1933	729,783,682	670,398,347
Tennessee Valley Authority	1933	3,563,045	500,200
Electric Home and Farm Authority	1934	20,034,786	10,133,790
Export-Import Bank of Washington	1934	67,576,646	37,113,160
Federal Farm Mortgage Corporation	1934	982,086,175	249,716,975
Federal Housing Administration	1934	1,152,934	141,000
Tennessee Valley Associated Cooperatives, Incorporated	1934	400,318	137,174
Farm Security Administration	1935	420,165,109	140,795,117
Puerto Rican Reconstruction Administration	1935	6,616,174	98,880
Reconstruction Finance Corporation Mortgage Company	1935	136,570,062	80,350,722
Rural Electrification Administration	1935	122,337,825	433,759
United States Maritime Commission	1936	87,612,127	37,935,798
Disaster Loan Corporation	1937	17,343,283	2,461,622
United States Housing Authority	1937	69,428,497	1,052,297
Federal National Mortgage Association	1938	129,966,926	4,897,147
Total		$24,970,549,831	$16,363,439,963

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[a] From *Report and Financial Statements Submitted by the Secretary of the Treasury to the Senate of the United States pursuant to Senate Resolution 150 of June 22, 1939*, Vol. I., Pt. I, Table 9, p. 68.

[b] Activities begun prior to creation of FCA in 1933.

[c] Includes $2,081,108 of notes and accounts reported to the Comptroller General for collection.

[d] Includes $403,179 unposted advances.

agencies. That is to say, even though losses occur, these agencies can justify themselves either on the ground that useful relief has been afforded or that some social, economic, or political objective is being promoted. Losses are thus chargeable to general welfare—which means to the Treasury, which in turn means to the taxpayers.

The development of these government credit institutions unquestionably served a constructive purpose in tiding distressed enterprises and sections of the economy over difficult years. An inevitable accompaniment of their development has been an enormous increase in the influence of government over the economic life of the nation. Government officials, rather than directors of private financial corporations, are coming to occupy the positions of dominant importance in directing the flow of national income. Reference is made not to the supervisory activities of government agencies but to the directing power which lies in control of the purse, especially of the reservoirs of credit from which come the funds necessary to replenish the exchequers of government credit agencies.

The possible ultimate effects of government competition upon private lending agencies is suggested by provisions of the proposed "Farm Credit Act of 1940."[6] This bill contains such provisions as: the establishment of a flat 3 per cent rate of interest on all farm mortgage loans by government credit agencies, applicable to outstanding as well as to future debts; the modification of amortization schedules on existing mortgages whenever the Governor of the Farm Credit Administration deems it necessary; the elimination of foreclosure procedures; granting permission to any mortgage debtor to apply for refinancing on a reduced basis when his debt exceeds the productive value of the farm, or the payments exceed available income; and empowering the Governor of FCA, in connection with refinancing, to make such changes in the size or character of the farm enterprise as he may deem essential.

If this bill were enacted into law it would mean the virtual elimination of agricultural mortgages from the field of private credit operations; all that the private companies could do would be to buy the 3 per cent government-guaranteed farm mortgage bonds. It would mean, moreover, that henceforth the primary principle governing credit relations in the field of agriculture would be the *needs* of borrowers rather than their *credit worthiness.* Farmers, borrowing on the basis of inadequate security, would in the event of ensuing difficulties look to the lender—that is, the government—to bail them out. The costs would in due course become a general charge against the taxpayers.

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[6] 76 Cong. 3 sess., S. 3509 and H. R. 8748.

As a result of the development of government credit agencies, private financial institutions have become in substantial measure merely intermediate institutions, collecting funds from the saving public and turning them over on a low-yield basis to government lending agencies.

III. FISCAL OBSCURITIES AND UNCERTAINTIES

The financial position of the federal government is also clouded by a number of practices and policies which make it exceedingly difficult to know precisely what the fiscal situation is at any given time. Reference has already been made to the indeterminate extent of the potential contingent liabilities. A number of other factors which contribute to the confusion remain to be mentioned.

1. *Inter-agency loans and advances.* The confused situation with respect to credit operations between government credit agencies may be illustrated as follows. The Treasury has supplied funds to the RFC through the purchase of both capital stock and bonds of this corporation. The RFC in turn has furnished capital funds (1) to the Export-Import Bank of Washington—through the purchase of preferred stock; (2) to the Federal Mortgage Association—through the purchase of stock; (3) to Federal Land Banks—through the purchase of notes; (4) to the RFC Mortgage Company—through the purchase of stock and bonds. Similarly, the HOLC has obtained its capital funds from the sale of stock to the Treasury, and the sale of bonds, debentures, and notes to various agencies and to the public. The HOLC has furnished capital funds to the Federal Savings and Loan Insurance Corporation and to Federal Savings and Loan Associations—through the purchase of stock; and the stock of these companies is sold to the Treasury and to the public. A third example is the PWA, which, though operating primarily with funds appropriated by the Treasury, also derives

capital funds by selling obligations received as security for loans, both to the public and to the RFC.

Detailed information as to the net result of these inter-agency transactions upon the fiscal position of the Treasury is nowhere clearly reported. It should be noted, moreover, that Congress does not require regular annual reports from the Export-Import Bank of Washington, the Tennessee Valley Associated Companies, Incorporated, or the Federal Crop Insurance Corporation.[7]

Owing either to the character of the statutory provisions, or to the autonomous nature of the organization, the following agencies are not required to submit their accounts for audit to the General Accounting Office: Reconstruction Finance Corporation; Federal Savings and Loan Associations; Federal Home Loan Banks; Federal Intermediate Credit Banks; Banks for Cooperatives; Regional Agricultural Credit Corporations; Federal Farm Mortgage Corporation; Inland Waterways Corporation; Federal Land Banks; RFC Mortgage Company.[8]

2. *Investment of surplus funds in government obligations.*[9] A practice which obscures both the operations of government corporations and credit agencies and the fiscal position of the Treasury is that of the investment of surplus funds of such agencies in interest-bearing obligations of the United States government. For example, on June 30, 1939, the Banks for Cooperatives, which had derived 97.9 per cent of their capital (i.e. 149 out of 152 millions) through the sale of stock to the Treasury, had 42.4 per cent of their total assets of 178 millions invested in direct obligations of the United States, and another 11.75 per cent in obligations guaranteed by the United States. Only 33.5 per cent were in loans to co-operative associations—the primary purpose for which the banks were organized. Income in the form of interest on direct obligations of the United States thus constitutes a large part of the total income of these banks while much of the government's proprietary interest in the banks is secured by the government's own obligations.

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[7] From *Report and Financial Statements Submitted by the Secretary of the Treasury to the Senate of the U. S. pursuant to S. Res. 150.*

[8] The same.

[9] Based on figures published in the *Daily Statement of the U. S. Treasury,* July 31, 1939, p. 6.

Similarly, the Federal Deposit Insurance Corporation, with 51.8 per cent of its issued capital stock owned by the United States (150 millions out of 289 million dollars) holds 342 millions of direct obligations of the United States, constituting 72.86 per cent of the corporation's total assets of 470 millions.

For reasons discussed in the preceding chapter, Social Security receipts are also nominally invested in government securities. In this case, however, the proceeds are used for current operating expenses, with the government setting aside IOU's as evidence of obligations incurred for the future.

3. *Use of recovered outlays for further expenditure.* It was originally contemplated that as recoveries or collections on loans were made by government corporations and credit agencies, the Treasury would be reimbursed for its advances and the debt correspondingly reduced.[10] In practice, however, the repayments have in most cases been used not to reduce Treasury indebtedness but to meet current obligations.

4. *Spending deposits of government agencies.* The Treasury acts as a bank for a number of government corporations and credit agencies, accepting their deposits and spending the cash to meet current operating expenses. These deposits are held as trust fund obligations and are not carried as liabilities against the assets in the general fund of the Treasury, and are thus not reflected in the public debt.

5. *Maneuvering the debt limit.* The present statutory limit of the gross direct debt of the United States government was set on July 20, 1939 at 45 billion dollars. As this limit is approached it becomes necessary either to extend the limit or to attain a balanced budget. Wishing to avoid the debt limit issue at this juncture, the administration has been canvassing ways and means of postponing the day of reckoning.

The two principal means thus far suggested for keeping within the debt limit are by (1) depleting the normal balance in the general funds in the Treasury—to the extent of more than a billion dollars; (2) liquidating capital contributions heretofore made to subsidiary government credit agencies, thereby making it necessary for these agencies instead of the Treasury to do the necessary borrowing. The stabilization fund of 1.8 billions might also be utilized. How far the Treasury balance can be depleted with safety obviously depends upon the amount normally required to meet current demand obligations. The device of transferring Treasury borrowings to subsidiary agencies amounts to a subterfuge which obscures, but does not alter, the extent of the government's obligations.

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[10] In the National Industrial Recovery Act, for example, it was provided that such collections should be applied to the cumulative sinking fund.

6. *Jockeying the budget.* Another element of confusion has been introduced into the fiscal picture during the last two or three years in the way of suggestions for modifying the form of presentation of the federal budget. It is suggested that we should have a double budget—an *operating* and a *capital* budget. Some of the advocates of this system would place in the capital budget only self-liquidating government investments, represented by securities or other definite and collectible assets. Others, however, would make no distinction between revenue- and non-revenue-producing assets, on the theory that "social values" are created by the latter which may be as important as the monetary values created by the former. By this method the ordinary budget can be readily balanced, and the so-called "investment budget" be made to appear as involving no elements of danger. Some of its advocates regard the "investment budget" as a useful device for expanding the scope of government outlays—as a tool to facilitate social planning.[11]

According to this line of thinking, government deficits are after all really assets; and an increase in the public debt is tantamount to a surplus from which investments are made. The investments may represent revenue-producing enterprises or securities; they may be in the form of public buildings, roads, parks, etc. which constitute *tangible* values but yield no revenue;[12] or they may be *intangible* social assets such as improved public health, better education, more direct or work relief, etc. As one writer puts it, "An intangible investment such as public health is just as sound an investment as the

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[11] Discussions at the conference on a "proposed investment budget for the United States," held at the Littauer Center at Harvard University, May 16, 1939.

[12] It is usually pointed out that in the case of public buildings used by the government rent is saved. But it is seldom mentioned that operating deficits are involved; it is often the case that it would be cheaper to use rented quarters.

Bonneville Dam, and maybe a good deal sounder."[18] It would seem to follow from the conception that deficits are synonymous with assets and debts with investments that we need have no concern about the financial condition of the national government.

On theoretical grounds it is easy to defend a form of investment or capital budget which includes only such assets as are revenue-producing and definitely self-liquidating. But the transfer of any other types of expenditures from the ordinary operating budget to an investment account only obscures realities and paves the way for later difficulties.

And even though a capital buget be based on the principle of including only revenue-producing investments, it is subject to grave dangers. There is always a tendency in periods of financial stringency to make the definition of self-sustaining projects broad enough to include anything that might be *potentially* revenue-producing in the future. This tendency is illustrated by present official proposals to place such outlays as those for rural electrification, the farm tenancy program, the Bonneville dam, etc. in the investment category. Whether all of these enterprises will pay out is admittedly problematical.

Experience conclusively shows that the resort to double and multiple methods of budgeting in order to alleviate present burdens and improve appearances has been a primary source of fiscal disorganization. France affords an illuminating example of the use of multiple budgets—having employed at times ordinary, extraordinary, and recoverable budgets, together with "special treasury accounts" in which are placed a wide variety of temporary loans and other abnormal investment accounts. The extraordinary budget and the special treasury accounts were in more or less continuous use throughout the nineteenth century. The extraordinary budget was abolished from time to time, but was always revived in periods of financial strain. It appears that in 1882 as many as seven different ministers succeeded in obtaining allotments from the extraordinary budget, acquiring the right under one plausible pretext or another. Moreover, expenditures were constantly shifted from one budget to another, and expenditures which were patently *regular* were charged against the loans of the extraordinary budget. According to the leading authority on French fiscal procedure, the extraordinary budget could be extended at will. "The mass of projects which clamor for inclusion in the extraordinary budget nearly always succeed in being so incorporated."[14]

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[18] David Cushman Coyle, "But Is There a Federal Deficit?" *Harper's Magazine*, April 1938, p. 455.

The character of some of the many special treasury accounts may be indicated by the following example. In 1832 the French treasury participated in a temporary loan to Greece. In 1857 an international commission stipulated that Greece should reimburse the advances in annual installments. In 1886 it was computed that at the existing rate of payments the obligation would be discharged in 135 more years. In 1887 the loan was expunged from the accounts of the treasury. Again, "temporary loans" were made to French industries in 1860. Twenty-eight years later more than 25 per cent of the total was carried to the "loss" account.[15]

The elementary truth is that in the end government deficits must be covered from taxation and other revenues. Manipulating the budget so as to conceal the magnitude of the deficit does not avoid the necessity of raising increased revenues from taxes and other sources. The expansion of non-revenue-producing government properties and the creation of social values affords no direct aid in solving the fiscal problem of raising sufficient cash to meet current obligations. The costs must eventually be borne by financially remunerative enterprises—either private or public.

IV. PUBLIC FINANCE AND PRIVATE INVESTMENT

The continued rapid growth of the public debt and the extension of the functions of government credit agencies affect private enterprise in varying ways. On the one hand, government borrowing undoubtedly has its stimulating aspect. Disbursements for relief purposes increase the buying power of an important segment of the population; and outlays for public works provide employment which in turn affects the demand for consumer goods. It is these effects alone which are in the minds of those who have pinned their faith to the spending theory. That this stimulus has, however, not brought the full economic recovery that was expected is obvious.

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[14] René Stourm, *The Budget*, p. 250.

[15] See André Cernesson, *Le principe d'unite budgetaire en France* (1911), pp. 48-61.

On the other hand, a chronically unbalanced budget constitutes a powerful deterrent to investment and private capital expansion. This is simply because of the increased risks involved in long-term commitments. Not only do steadily rising taxes threaten the margin out of which interest and dividends come, but the possibility of a breakdown of government credit and ensuing price and wage distortions, accompanied by social and political instability, seriously complicates the problem both for business enterprisers and investors. Short-term commitments such as those involved in current business operations in connection with the production of consumer goods will be readily undertaken, for they are expected to liquidate themselves within a few months. But the hazards involved in long-term capital commitments under current conditions are serious.

If an end to the expansion of government outlays could be definitely foreseen, or if there was any assurance that income would rise sufficiently to eliminate the need of future tax increases, the fears which now impede capital investment would be alleviated. But until there is evidence that a definite reversal of present trends is in prospect, no restoration of confidence can be expected.

Present fears are rooted not so much in the belief that it is impossible to balance the budget as in the conviction that the *will* to check the growth of public indebtedness no longer exists. This belief is based in part upon current trends with respect to expenditures and in part upon official policies and conceptions. The present administration was at the outset committed to the proposition that the only foundation upon which genuine recovery could be built was that of sound public finance. The view, however, shortly developed that a temporary *moderate* unbalancing of the budget was necessary in order to give an impetus to recovery. A little later the opinion crystallized that moderate spending was of no avail—that it was necessary to make outlays on a vast scale if full recovery were to be achieved. Finally, the philosophy has been developing that we cannot balance the budget without endangering prosperity.

It is contended, for example, that the substantial reduction of the government deficit between June 1936 and the following March was responsible for the recession of 1937. The argument runs that this curtailment of national income and purchasing power necessarily resulted in a contraction in the volume of sales and business activity. The fact that the reduction of public outlays was much more than offset during the period in question by an expansion of private outlays is overlooked. *Aggregate* national income was at the time rising sharply and the volume of retail sales was constantly increasing.

Moreover, the view has now come to be widely accepted in official circles that our national welfare is dependent upon the continuous utilization of public credit. Public credit—which implies fiscal deficits—is coming to be regarded as essential not only for the generation of consumer purchasing power but for the creation of social values in line with comprehensive national planning programs. This philosophy is of course closely related to the conceptions that the United States has now reached a stage of economic maturity, that little further private capital expansion is possible, and that such as may occur can be readily financed without resort to the capital markets. In consequence, the continued flotation of government securities is deemed essential not only to provide employment for labor but also to provide outlets for savings which have no other place to go.[16]

The continuous expansion of the public debt, the various practices and policies which confuse and obscure the fiscal situation, and the developing philosophy that a permanent expansion of public credit and public debt is not only inescapable but essential to economic and social progress inevitably cause profound concern with respect to future financial and economic stability and also with respect to the future of the system of private enterprise. They seem clearly to indicate a definite, if not perhaps wholly conscious, movement in the direction of socialization. Taken in conjunction with other forms of restrictive legislation and recurrent attacks upon the system of private enterprise they *inevitably* create an atmosphere unfavorable to the assumption of the risks involved in private enterprise, particularly in the field of long-term capital investment.

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[16] For evidence of this point of view, see hearings of the Temporary National Economic Committee; quotation from Adolf A. Berle, Jr., p. 164 of this volume; and discussion of Mr. Eccles' point of view on p. 187.

CHAPTER XV

SUMMARY AND CONCLUSIONS

As was pointed out in the introduction to this study, there appears to be widespread agreement that the failure of the American economic system to achieve full recovery in recent years is closely related to the persistently subnormal level of activity in the field of capital reconstruction and expansion. It was also noted, however, that fundamental disagreement exists with respect to the factors and forces responsible for the retarding of capital enterprise. This investigation has had two primary objectives: first, to disclose as accurately as possible the facts as to the changes which have been occurring in the American capital market; and second, to test the validity of the various explanations which have been advanced as to the probable causes of the present stagnation of capital enterprise.

As the simplest and sharpest means of recapitulating this comprehensive analysis, the results are presented in the form of answers to specific questions bearing on the fundamental issues involved in the reopening of the capital markets. The first series relates chiefly to the facts with respect to the changes which have occurred in the investment market, while the second pertains to the various possible explanations of the existing stagnation.

THE CAPITAL MARKET SITUATION

In order to make this factual summary concise and pertinent to current conditions, it will be confined to the striking contrasts between the capital market situation of the prosperity period of the twenties and the recovery years of the thirties.

1. *How did the volume of new security and mortgage issues (other than those of the federal government) in the late twenties compare with that in the late thirties?*

In the three years 1927-29, the new flotations averaged about 8.8 billion dollars annually, while in the years 1936-38 the average was only 1.3 billions.

2. *What were the principal changes in the types of private investment outlets in the thirties as compared with the twenties?*

In the twenties, real estate mortgages and securities constituted much the largest outlet; industrial issues were second; public utilities, third; foreign securities, fourth; and railroad issues, fifth. In the thirties, industrial and public utility outlets were the most important, with railroads a poor third. Real estate issues almost entirely disappeared, and foreign outlets became a negative quantity.

3. *What was the relative volume of state and local government issues in the late thirties and the late twenties?*

In the years 1927-29, state and local government issues amounted to approximately a billion dollars a year, in excess of repayments. In the thirties, the volume averaged less than 100 million dollars a year.

4. *How did the volume of federal government issues in the late twenties compare with that in the late thirties?*

In the years 1927 to 1929, the federal government paid off outstanding government securities at the rate of about 900 million dollars annually. In the years 1936-38 the treasury borrowed approximately 3 billion dollars a year.

5. *What was the relative volume of foreign security flotations in the two periods under consideration?*

In the late twenties the volume of foreign security sales in the American market exceeded repayments by nearly 800 million dollars annually. During the years 1936-38 repayments exceeded new issues to the extent of over 100 million dollars a year. In addition, foreigners repurchased in American markets a substantial volume of foreign securities.

6. *How great a reduction occurred in the volume of money savings between the late twenties and the late thirties?*

Rough estimates indicate that the volume of individual money savings in the late twenties amounted to from 12 to 15 billion dollars a year. Similar estimates for the years 1936 to 1938 indicate a volume of individual money savings of from 5 to 7 billions of dollars. Corporate savings in the former period averaged about 2 billions a year; in the thirties they were negligible.

7. *What significant changes have occurred in the commercial banking situation between 1929 and 1939?*

Notwithstanding an increase in deposits of over 10 per cent, the total earning assets of the commercial banks decreased as much as 20 per cent. Owing to the lack of demand for short-term loans, commercial banks have greatly increased their holdings of securities, particularly government issues.

8. *What are the principal causes of the phenomenon of "excess bank reserves"?*

The most important and persistent cause has been the increasing supply of gold, with a decreasing demand for loans a contributing factor. The expansion of the gold supply is the result of three factors: the increase of gold production, under the stimulus of a high price; a huge inflow of gold from abroad; and the devaluation of the dollar. The gold imports are due in part to disorganized conditions abroad and in part to the fact that the United States is the only country which will buy gold in unlimited quantities.

9. *What is the bearing of the excess reserves upon the capital market?*

They are largely responsible for the extremely low short-term interest rates now prevailing. Moreover, because the banks are large purchasers of long-term securities, they exert a strong downward pressure on long-term interest rates.

10. *What has been the effect of the stagnation in the capital markets on interest rates?*

Short-term commercial money rates, depending upon the character of the loan, have declined from one-third to five-sixths as compared with their pre-depression levels. Yields on high-grade investment issues have declined approximately 40 per cent.

11. *What has been the effect of the decline in interest rates upon the condition of financial institutions?*

It has reduced the income of commercial and mutual savings banks by about 45 per cent and of life insurance companies 20 per cent; and it has reduced the dividends of building or savings and loan associations by approximately 50 per cent. The declining yields have forced some of these institutions to seek new and less liquid, and perhaps less secure, forms of investment. Moreover, the full effects of present rates have not as yet been manifest, especially in the case of insurance companies, whose portfolios still contain many securities which have not as yet been refunded at lower rates of interest.

12. *How has the decline in investment yields affected endowed institutions and kindred agencies?*

It has reduced the average income from endowment funds from 20 to 30 per cent, the decreases as a rule being greater in the case of the smaller funds. This decline in yield is of course tantamount to a like decrease of endowment. The loss of income not only directly curtails the work of educational institutions, hospitals, etc., but through its effects upon philanthropic and charitable foundations and the incomes of wealthy individuals, it seriously impairs the bases of current support for such institutions and restricts the services of a wide range of important social agencies.

13. *What does the decline in interest rates mean to the individual investor?*

The decrease in the rate of return on savings deposits, in the dividends on insurance policies and savings and loan associations, together with the decline in the yield on direct investments in securities, means, assuming present trends continue, a serious impairment of the expected provision for old-age security and for dependents. To obtain the same protection now as formerly requires nearly double the amount of savings accumulation.

14. *What has been the effect of the prolonged depression upon the assets of business corporations?*

Between 1929 and 1936 the aggregate assets of non-financial corporations as a whole declined 36 billion dollars—16 billions representing write-downs of depreciated properties and 20 billions disbursements for interest, dividends, wages, etc., in excess of available income. The decrease in the assets of financial corporations amounted to another 4 to 5 billions.

15. *What has been the effect of the depression upon the working capital of corporations?*

The amount of working capital of industrial corporations as a whole declined materially between 1930 and 1937, and the significant *ratio of current assets to current liabilities* showed some deterioration, varying markedly in different fields of enterprise. Even in the case of large successful industrial corporations the working capital position is now less favorable than before the depression.

16. *Is it true that the large industrial corporations can now finance all potential capital requirements from internal sources?*

The answer is unqualifiedly in the negative. In most cases only a moderate expansion in current output could be financed without additional short-term borrowing. To make large additions to plant and equipment would require extensive recourse to the long-term investment market. The view that corporations have in recent times been financing the great bulk of their "investment" or "capital" requirements out of "depreciation reserves" is based upon a failure to distinguish between the mere replacement of old capital and the construction of new capital. Additions to corporate surpluses in recent years, as already noted, have been negligible.

17. *What is the principal source of financial weakness of medium- and small-scale businesses?*

The smaller corporations have a definite shortage of working capital. Their primary need is for additional "equity capital," represented by stock. The extension of short-term loans or intermediate credit to companies which are deficient in working capital does not reach to the heart of their problem. It follows that there is no clear need for extensive additional short- or intermediate-term credits. Legitimate requirements can be met by the Reconstruction Finance Corporation or other existing credit agencies.

18. *Is there any evidence to support the current thesis that the disappearance of the frontier and a declining rate of population growth have ushered in a stage of "economic maturity" necessitating the extensive supplementation of private by public enterprise?*

Available data afford no confirmation of this view. Figures of aggregate production data show no declining tendency prior to 1929 —although the frontier had disappeared a generation earlier and the rate of population increase had been declining for half a century. The decline in production since 1929 proves only that there has been a protracted depression; it throws no light on future requirements or possibilities.

19. *What are the economic foundations on which further private capital construction might be based?*

They are, first, the production and capital requirements involved in making good the losses of the last decade; second, the requirements for the increase in population that has already occurred and for the estimated further increase in population during the next 40 years; and, third, the production and capital requirements essential to the raising of standards of living for the population as a whole.

20. *How great an increase in capital would be required over the next 40 years to provide the estimated population of 1980 with a "liberal" standard of living, as defined by the Department of Agriculture?*

While such an estimate can be only a rough approximation, it appears that the additions to plant and equipment would have to be in the magnitude of from 4 to 5 billion dollars annually; and that investment in housing facilities would have to be at the rate of about 6 billions a year. There would also be large additional requirements in such fields as highways and streets, sewers, waterworks, and other municipal utilities. Possible foreign outlets for American capital are not included in the estimates.

EXPLANATIONS OF CAPITAL MARKET STAGNATION

The results of this investigation have served to refute various explanations of the restriction of the flow of funds into capital markets, and to indicate that others have been of real significance. The following questions are focused upon the issues which have been more or less in controversy during recent years.

1. *Has the shrinkage of national income, coupled with higher taxes, dried up the sources of savings, thereby creating a shortage of investment money?*

The answer is that while the volume of money savings is now only about half as great as in the late twenties, it is nevertheless greatly in excess of *current* market demands, as gauged by the volume of new security issues. That is to say, there has been so great a dearth of investment outlets that even the shrunken supply of investment money has been in excess of demands.

2. *Is the restricted volume of new capital issues explainable by a lack of investment banking or underwriting capital?*

The answer to this question is also no. While the volume of investment banking capital has been greatly reduced, it is more than adequate to handle the existing volume of flotations. Moreover, additional capital and additional credit would be quickly attracted to this field of enterprise if the volume of profitable business were to increase.

3. *Is the dearth of new security flotations attributable to an impairment of the financial condition of American corporations as a whole? That is to say, is their credit position such as to permit them to float securities?*

The analysis reveals that, except in the railroad and service fields, neither the long-term debt nor the earnings record of corporations as a whole is such as to constitute any real barrier to the raising of new capital. However, the credit position of the smaller corporations as a class is relatively unsatisfactory.

4. *Has the working capital position of American corporations been such as to permit short-term borrowing?*

The answer is yes so far as large and medium-sized corporations as a whole are concerned. But the working capital position of small corporations as a group is not such as to justify bank loans.

5. *Have the commercial banks been unduly restrictive in their credit policies?*

The fact is that, owing to the practical necessity of preventing further decreases in already meager earnings, banks have been making unusual efforts to expand credit. The primary explanation of the small volume of bank credit extensions is the lack of demand from credit-worthy enterprises.

The analysis thus far indicates that the restricted flow of funds into investment cannot be explained by abnormal conditions in the private capital market. There is a substantial volume of investment money, and a plethora of short-term credit resources; there is sufficient underwriting capital; and the credit position of American corporations is on the whole reasonably satisfactory. It is therefore necessary to consider the possible bearing of government regulations and other policies upon capital enterprise.

6. *Are the regulations developed under the federal Securities Act responsible for the dearth of security offerings?*

The answer has to be a qualified one. It is obvious from the record that a considerable volume of securities has been issued in accordance with the provisions of the Securities Act; thus the regulations are clearly not *prohibitive.* On the other hand, a considerable volume of issues has been privately placed in recent years—evidencing a desire to avoid the regulations imposed by the Commission. The protracted period of time involved in meeting the regulations of the Commission has undoubtedly increased the market risks, particularly to the issuing corporation. The vagueness of some of the rulings and the indefiniteness of penalties have been complicating factors. The cost involved in meeting the legal and other expenses necessary for compliance with the law is of serious import in connection with the issues of small corporations. Similarly, the act has worked against the operations of the small local dealers, which are a vitally important part of the investment banking machinery of the country.

On the whole, the analysis leads to the conclusion that federal and state security regulations have been a contributing, but not a major, factor in the capital market situation. Appropriate modifications in the law and its administration, as recommended elsewhere, would remove any seriously restrictive influences, without impairing the beneficial effects of the act in safeguarding the interests of investors.

7. *In what ways, if any, has taxation restricted the flow of funds into investment?*

The existing taxation system—which was developed without thought of possible effects upon the capital market—has one very important influence upon the flow of funds into investment. It encourages investment in high-grade bonds, particularly tax-exempt issues, and it discourages investment in equity securities. Inasmuch as the primary need at the present time is for the expansion of capital enterprise through the medium of stock flotations, the effect of present tax laws upon the expansion of private capital enterprise is both direct and serious.

Modifications of the tax system, as recommended in this study, should serve to stimulate productive capital investment and thus to expand the volume of employment and of national income, both of which developments would facilitate the balancing of the federal budget.

8. *What is the bearing of present fiscal policies and the development of government credit agencies upon private capital expansion?*

The persistence of huge fiscal deficits and consequent growth of the public debt, together with the developing philosophy that a permanently unbalanced budget is essential to the maintenance of prosperity, the furnishing of employment in public enterprise, and the provision of outlets for otherwise idle investment funds, have unquestionably lessened the disposition of both enterprisers and investors to assume the risks inherent in long-term capital commitments. Uneasiness over the future of private investment is accentuated by the fear of an ultimate breakdown of public credit accompanied by price and wage inflation, and also by the growing competition of government credit agencies. The tangled web of inter-agency credit operations, together with the maneuvering of the debt limit, and the apparent disposition to transfer to a so-called "investment" budget the bulk of the outlays which cannot be covered from ordinary revenues, contribute to the prevailing confusion and uncertainty.

These factors, though indirect and largely psychological in character, constitute serious impediments to long-term investment. The system of private enterprise involves the making of commitments extending over a considerable period of time, and such commitments will not be undertaken if the risks appear prohibitive.

The title—Capital Expansion, Employment, and Economic Stability—has been given to this volume because we cannot expect to have economic stability so long as millions remain unemployed, and we cannot expect to eliminate unemployment without an expansion of capital enterprise. Stagnant capital markets inevitably involve unemployment; and unemployment means social and political instability. Similarly, restricted capital expansion means low national income and consequent fiscal and general financial instability.

The re-establishment of the stable conditions which are so sorely needed in the United States at this critical period in world history largely depends upon the removal of unnecessary impediments to the flow of funds into constructive capital developments and the restoration of confidence in the future of private enterprise.

APPENDIXES

APPENDIX A

INVESTMENT OUTLETS AND RELATED DATA

The data presented in this appendix are those underlying the charts and the discussion in Chapters I and II. As was noted in the text, the presentation of tabular material starts with 1907 because of the more adequate statistical information that became available at that time. Compilations of industrial and public utility issues were not published prior to 1907. While some railroad data are available for earlier years, they are not suitable for the purposes here in hand; hence it was deemed inadvisable to attempt a statistical analysis prior to 1907.

In general, the tables given are self-explanatory. Where adjustments have been made in the data the methodology employed is explained in appended footnotes. In the field of real estate no comprehensive annual figures have ever been published, and it has accordingly been necessary to assemble such data as are available with a view to making the best estimates possible. The basis of the estimates given in the text are explained in section IV below. While we believe that the general trends disclosed are reasonably reliable, the annual figures cannot, of course, be regarded as other than rough estimates. A similar problem exists in connection with foreign investments. Fortunately, we have here available the results of a comprehensive investigation previously published by the Brookings Institution, entitled *America's Stake in International Investments*, and the data given in section V are taken from this study.

I. NEW CAPITAL ISSUES OF DOMESTIC CORPORATIONS, 1907-39

ANNUAL TOTALS, IN MILLIONS OF DOLLARS

I. 1907–19 (INCLUDING REFUNDINGS)[a]

Calendar Year	Railroads[b]	Utilities	Industrials[c]	Real Estate	Investment Trust, Holding and Trading Companies
1907	957	...	437	...	...
1908	999	...	424	...	...
1909	1,015	...	666	...	...
1910	877	. .	642	...	. .
1911	1,099	...	640	...	...
1912	1,102	...	1,152	. .	...
1913	954	...	692	...	...
1914	931	. .	506	...	. .
1915	630	308	443	...	...
1916	624	587	844	. .	...
1917	408	327	682	...	...
1918	237	476	625	...	...
1919	306	547	2,095	...	...
II. 1920–JUNE 30, 1939 (EXCLUDING REFUNDINGS)[d]					
1920	248.9	371.2	1,897.5	91.0	...
1921	267.7	478.6	948.8	52.7	...
1922	498.4	720.0	973.4	157.9	...
1923	459.5	827.7	1,288.9	241.0	...
1924	658.4	1,282.8	1,091.1	330.8	...
1925	329.4	1,271.4	1,242.5	710.9	15.1
1926	284.9	1,354.5	1,275.6	703.1	52.1
1927	430.7	1,867.7	1,431.9	622.5	151.2
1928	313.4	1,489.9	1,929.4	708.2	771.3
1929	378.5	1,660.7	3,266.2	510.2	2,060.3
1930	690.4	2,082.1	1,207.1	243.0	232.7
1931	225.6	905.8	280.1	127.9	4.1
1932	13.1	274.4	28.6	8.1	1.2
1933	12.0	34.2	111.7	0.9	1.1
1934	71.5	49.4	37.0	0.4	18.8
1935	72.8	83.6	243.2	2.0	2.0
1936	267.4	123.7	776.0	11.9	12.9
1937	235.6	153.8	827.2	9.7	0.3
1938	16.0	270.8	557.2	6.1	4.1
1939, to June 30	34.3	21.5	152.8	1.0	1.0

[a] Data are from *New York Journal of Commerce*, reprinted in the *Statistical Abstract of the United States, 1926*, p. 306. They include all issues of $100,000 or over. For 1915–39 we have eliminated issues of foreign corporations and loans floated by American corporations for use abroad. Annual totals of such issues were compiled from the itemized lists published monthly in the *Chronicle*—checked against data in Department of Commerce publications cited in note *c* to table on p. 348.

[b] For the years 1907–14 traction company issues are included.

[c] For the years 1907–14 the data include public utilities other than tractions.

[d] Compiled from *Commercial and Financial Chronicle* (see footnote *a*).

II. INTEREST-BEARING FEDERAL PUBLIC DEBT, 1907-39[a]

AMOUNT OUTSTANDING ON JUNE 30, IN MILLIONS OF DOLLARS

Year	Cumulative Total[b]	Annual Increase or Decrease (−)
1907	895	—
1908	898	3
1909	913	15
1910	913	—
1911	915	2
1912	964	49
1913	966	2
1914	968	2
1915	970	2
1916	972	2
1917	2,713	1,741
1918	11,986	9,273
1919	25,234	13,248
1920	24,061	−1,173
1921	23,737	− 324
1922	22,711	−1,026
1923	22,008	− 703
1924	20,982	−1,026
1925	20,211	− 771
1926	19,384	− 827
1927	18,251	−1,133
1928	17,318	− 933
1929	16,639	− 679
1930	15,922	− 717
1931	16,519	597
1932	19,162	2,643
1933	22,158	2,996
1934	26,480	4,322
1935	27,646	1,166
1936	32,756	5,110
1937	35,803	3,047
1938	36,579	776
1939	39,892[c]	3,313

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[a] *Report of the Secretary of the Treasury, 1938*, p. 544. Figures are taken from the monthly debt statements and revised figures published in the Annual Reports of the Secretary of the Treasury.

[b] Exclusive of the bonds issued to the Pacific railways (provision having been made by law to secure the Treasury against both principal and interest) and the Navy pension fund (which was in no sense a debt, the principal being the property of the United States).

[c] U. S. Treasury, *Statement of the Public Debt*, June 30, 1939.

III. INTEREST-BEARING PUBLIC DEBT OF STATES, COUNTIES, CITIES, ETC., 1913-38[a]

AMOUNT OUTSTANDING ON JUNE 30, IN MILLIONS OF DOLLARS

Year	Total	Annual Increase or Decrease (−)
1913	4,528	—
1914	4,949	421
1915	5,417	468
1916	5,875	458
1917	6,290	415
1918	6,643	353
1919	7,042	399
1920	7,746	704
1921	8,476	730
1922	9,893	1,417
1923	10,598	705
1924	11,633	1,035
1925	12,830	1,197
1926	13,664	834
1927	14,735	1,071
1928	15,699	964
1929	16,760	1,061
1930	17,985	1,225
1931	19,060	1,075
1932	19,330	170
1933	19,517	187
1934	18,823	−694
1935	18,972	149
1936	19,212	240
1937	19,152	− 60
1938	19,170	18

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[a] *Report of the Secretary of the Treasury, 1938*, p. 544. The estimate of the amount of securities outstanding in earlier years was based upon the Bureau of the Census decennial *Financial Statistics of State and Local Governments* and annual *Financial Statistics of States* and *Financial Statistics of Cities*, as well as the statistics of new security issues and security retirements published in the *Bond Buyer* and in the Commercial and Financial Chronicle's *State and Municipal Compendium*. Data for the years 1900–13 are insufficient and not comparable.

IV. REAL ESTATE INVESTMENTS

There are no series of data showing the amount of rural and urban mortgages issued annually. It is possible, however, to present rough estimates of the annual growth of both farm and urban mortgage indebtedness for the periods here under consideration.

1. *Farm mortgages.* The Census Bureau has compiled figures

showing the volume of outstanding farm mortgage indebtedness for the years 1890, 1910, 1920, and 1930. Between 1890 and 1910 the increase amounted to 1.3 billion dollars. It is known that in periods of rising farm prices a substantial part of farm purchase money is borrowed on mortgage security; hence one may conclude that the rate of increase in mortgage indebtedness was very slow during the low price period of the nineties, and much more rapid thereafter. It would be reasonable to assume that the increase in the second of the two decades amounted to as much as a billion dollars, and that in the later years it was well over 100 million dollars a year. This estimate is confirmed by figures which have been compiled by the Department of Agriculture for the period since 1909, which are presented below.

ESTIMATED FARM MORTGAGE DEBT, JANUARY 1, 1910–39[a]
(In millions of dollars)

Year	Amount	Annual Increase or Decrease (−)	Year	Amount	Annual Increase or Decrease (−)
1910	3,208	—	1925	9,913	−734
1911	3,522	314	1926	9,726	−187
1912	3,929	407	1927	9,671	− 55
1913	4,352	423	1928	9,765	94
1914	4,712	360	1929	9,761	− 4
1915	4,994	282	1930	9,631	−130
1916	5,259	265	1931	9,462	−169
1917	5,828	569	1932	9,213	−249
1918	6,541	713	1933	8,638	−575
1919	7,142	601	1934	7,887	−751
1920	8,449	1,307	1935	7,786	−101
1921	10,198	1,749	1936	7,639	−147
1922	10,660	462	1937	7,390	−249
1923	10,751	91	1938	7,214	−176
1924	10,647	−104	1939	7,071	−143

[a] D. C. Horton, "Thirty Years of Mortgage Debt," *The Agricultural Situation*, U. S. Department of Agriculture, October 1939, p. 11.

Farm mortgage indebtedness from 1910 through 1914, according to the accompanying table, increased by $1,786,000,000, or at the rate of over $350,000,000 a year. The average rate of increase for the period 1907 to 1914 may be conservatively estimated at

$300,000,000. The war period 1915 to 1919 resulted in an extraordinary increase in farm indebtedness, incurred chiefly as a means of buying land which had risen greatly in price as a result of war-time demands. The total indebtedness increased by $3,455,000,000, or at the rate of about $700,000,000 annually. (See table, p. 343.)

During the years 1920 to 1929 inclusive, farm mortgage indebtedness increased by $1,182,000,000, or at the rate of about $120,000,000 a year. The amount increased materially in the early twenties, but declined after 1922.

In the years 1930 to 1939 farm mortgage indebtedness declined by $2,560,000,000, or at the rate of $250,000,000 a year. Since a substantial amount of this was a result of foreclosures, it cannot be assumed that that amount of money was released for investment elsewhere.

The estimated annual changes in farm mortgage indebtedness from 1910 to 1939 are shown in the table on page 343.

2. *Urban mortgages.* In the field of urban mortgages we have no data prior to 1912. Such mortgages are held chiefly by two groups of institutions: (1) banks, life insurance companies, building and loan associations, mortgage companies, and title and trust companies; and (2) individuals. The extent of the mortgage holdings of banking institutions, insurance companies, and building and loan associations have been computed by the United States Department of Commerce for the years 1912 and 1920-34 inclusive. Estimates of the total outstanding urban mortgage indebtedness have also been made by selected years from 1912 to 1934. These are presented in millions of dollars, in the table which follows.[1] The table includes both individual mortgages and real estate securities.

1912	7,000
1922	15,200
1930	37,200
1934	30,400

Before attempting to derive average figures for the particular periods in which we are interested, it is necessary to note that there were wide fluctuations in the volume of new construction during the years covered by the table. In the years preceding the World War there was a rapid growth of urban communities and also a rapid expansion in the volume of residential construction involving the use of mortgage money. During the World War years, however, new construction, except in war centers, was rather severely restricted. After the war the development of an urban residential boom was held in abeyance until late 1921.

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[1] Donald C. Horton, *Long-Term Debts in the United States*, p. 139 (U. S. Dept. of Commerce).

The average annual increase in outstanding urban mortgages between 1922 and 1930 was 2.7 billions. In view of the depression of 1920-21 it would seem that in the three years 1920 to 1922 inclusive the aggregate amount would have been something like 4 or 5 billions. If so, the increase between 1912 and 1920 would have been around 3 to 4 billions, or at the rate of perhaps 500 millions a year. In the light of conditions mentioned above, it would seem probable that a figure of 400 millions a year from 1915 to 1919 would be a reasonable estimate. Presumably it would have been somewhat higher between 1912 and 1914, but somewhat lower in the years back to 1907. Perhaps an estimate of 400 millions a year for the period 1907 to 1914 would not be seriously in error. The average rate of increase from 1920 to 1929 was approximately 2.6 billions a year.

In the depression years there was a large liquidation of the amount of outstanding urban mortgage indebtedness as a result of the defaults and foreclosures which occurred. The figures show a decline between the end of 1930 and the end of 1934 of nearly 7 billions. This process did not, of course, release investment funds for the purchase of other securities. As the table on page 340 indicates the volume of new real estate security flotations for the years 1930 to 1934 aggregated only 380 million dollars.

No official estimate of the total outstanding mortgage debt has been made for the years since 1934. It is possible, however to give a rough indication of the trend by reference to certain available data. The following table shows, in thousands of dollars, the amount of private real estate security issues and also the volume of new mortgage loans guaranteed by the Federal Housing Administration from 1935 to 1939.

Year	Private Issues	Guaranteed Mortgage Loans
1935	2,000	35,495
1936	11,900	150,822
1937	9,700	245,652
1938	6,100	388,492
1939	4,580	580,204

We may now summarize the estimates for both farm and urban real estate mortgages for the various periods under review. The figures are estimated annual averages, in millions of dollars.

Year	Farm	Urban	Total
1907-14	300	400	700
1915-19	700	400	1,100
1920-29	120	2,490	2,610
1930-38	—	274	274

V. INVESTMENTS IN FOREIGN SECURITIES

The brief summary of foreign outlets for American investments here given is based upon *America's Stake in International Investments* by Cleona Lewis, published by the Brookings Institution in 1938.[2]

Early investments. The flotation of foreign securities in the American market was of relatively minor importance prior to the outbreak of the World War. From colonial days on, American capitalists from time to time naturally bought some securities in foreign markets. It was not until the decade of the 1860's, however, that any foreign issues were floated in the American market. By the turn of the century the number and amount of foreign flotations in the United States were increasing rapidly. In fact, in the five years 1901-05, such flotations amounted to a larger total than in any other half decade prior to 1915. Many of these were short-term issues that were paid off at maturity, while foreign purchases of such securities in the American market further reduced the amount held by American investors. Thus in some years maturities and repatriations more than offset the new issues taken by American investors. However, by the close of 1906 American investors probably held about 600 million dollars of foreign securities, compared with about 50 millions in 1897. These estimates are based on detailed data with regard to the flotation and maturities of individual foreign issues, and with allowance for the repurchase and repatriation of such securities by foreign investors.

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[2] Particularly pp. 174, 332-456, 605, 631, and the work sheets and data used for that study.

January 1907-December 1914. During these eight years American purchases of the securities issued by foreign governments and foreign corporations amounted to a very small total, allowance being made for foreign repayments of loans and repurchases of securities in the American market. At the close of 1914, American holdings of foreign securities amounted to about 862 million dollars, compared with about 600 millions at the beginning of 1907, or a net increase of about 262 million dollars.

This was a period during which American corporations were actively engaged in acquiring direct control and ownership of foreign natural resources, and in establishing branch houses and branch plants abroad. Such direct investments abroad aggregated roughly 1,560 million dollars at the beginning of 1907, increased to 2,652 millions by the close of 1914, a growth of 1.1 billion dollars in eight years. Only a very small part of this increase represented security issues publicly offered in the American market for the avowed purpose of expanding the foreign investments of the companies. Probably one-fifth of the total represented reinvested earnings from earlier direct investments abroad and the capitalized value of new foreign concessions and subsidies. By far the greater part, however, was provided from the accumulated surplus of American corporations, from bank loans, and from funds invested directly by wealthy Americans; and for present purposes these are not considered to be foreign outlets for American funds.

January 1915-December 1938. For the war and post-war period it is possible to present reasonably satisfactory annual estimates of American investments in foreign securities (exclusive of the market purchases made abroad by individual investors) and in the securities issued by American companies to provide funds for building up direct investments abroad. These estimates are presented in the table below. Footnotes to the table indicate the source and character of the data. It should be mentioned here that the table does not include short-term credits extended to foreigners, which aggregated from 300 to 500 million dollars.

Net Total of Foreign Security Issues in the American Capital Market[a]
Including Issues by American Corporations for Direct Investment Abroad
(In millions of dollars)

Calendar Year	Net New Dollar Loans[b]	Security Issues of American Companies for Use Abroad[c]	Foreign Currency Bonds and Shares[d]	Net Total of Foreign Issues
1915........	789.0	26.9	5.8	821.7
1916........	1,062.0	95.7	19.5	1,177.2
1917........	509.0	62.9	55.4	627.3
1918........	−482.6	—	1.6	−481.0
1919.......	28.8	25.8	21.4	76.0
1920.......	− 84.5	64.1	27.4	7.0
1921........	379.6	49.8	8.5	437.9
1922	559.8	67.4	94.5	721.7
1923........	264.5	64.6	16.1	345.2
1924........	910.7	81.0	9.3	1,001.0
1925.......	712.5	154.5	19.1	886.1
1926.......	685.8	231.0	17.8	934.6
1927	1,010.4	199.9	13.4	1,223.7
1928	676.9	155.5	89.2	921.6
1929	−101.0	254.9	22.7	176.6
1930	537.0	151.3	—	688.3
1931	−176.2	16.7	—	−159.5
1932	−284.6	—	—	−284.6
1933.	−308.3	0.7	0.1	−307.5
1934........	−539.1	—	—	−539.1
1935	−231.0	—	—	−231.0
1936........	−166.9[c]	—	13.0	−153.9
1937........	−166.0[c]	—	—	−166.0
1938........	− 30.6[c]	—	—	− 30.6

[a] In column 1 the figures represent net new issues, including public offerings and also those privately taken, in so far as these could be identified. Allowance has been made for loans refunded, called, or reduced by sinking fund payments. Columns 2 and 3 exclude refunding issues, but adjustments have not been possible for other repayments. All figures are in par value terms.

[b] For the years 1915–35, from Cleona Lewis, *America's Stake in International Investments*, p. 631. For 1936–38 data are from sources listed in footnote *c* below and exclude privately placed issues. These figures, of course, exclude inter-government loans which were made to foreign governments from funds which the United States government borrowed in the American market.

[c] United States Department of Commerce, *Handbook of American Underwriting of Foreign Securities*, pp. 160–66; *Trade Information Bulletin 746*, pp. 18, 22–27; *802*, pp. 12, 16–17; *814*, p. 27; *819*, p. 45; *826*, p. 44; and *833*, p. 54; *Balance of International Payments of the United States*, *1936*, p. 61, *1937*, p. 83, *1938*, p. 74.

[d] Compiled from sources listed in note *c*, with some additional data from various other publications. Conversion to dollar values, as indicated in these sources, was at the rates of exchange effective when the securities were sold in the United States.

VI. SECURITY FLOTATIONS AND PRODUCTIVE CAPITAL ISSUES

It was pointed out in the text, pages 26-29, that under modern conditions there is little coincidence between the volume of security issues and the amount of new capital construction. That is to say, a substantial part of the proceeds derived from security flotations is devoted to purposes other than employment of labor and materials in the construction of new plant and equipment. Moody's Investors Service has analyzed the purposes for which security flotations have been made for the entire period 1921 to 1938 for both private corporations and state and local governments. The method used in making the segregation into productive and non-productive issues is as follows:

> The source of the data used is the *Commercial and Financial Chronicle*, and in cases where the description of the purposes of the issue there given is inadequate the prospectuses accompanying new issues are also consulted. The stated purpose of each issue is examined, and its "productive," "non-productive," or "indeterminate" character broadly determined on the basis of the following classification. The "x" in each case shows the classification made.
>
> In many cases funds are of course devoted to more than one purpose. Where two or more purposes are combined, investigation or good judgment is needed. Where refunding is combined with any other purpose, the amount constituting the refunding can generally be ascertained in consultation with Moody's industrial, utility, or railroad specialists familiar with the given situation. Where no clear idea of the purpose of the issue can be thus obtained it is placed in the "indeterminate" group.

New Productive Capital Issues, 1922–30

Purpose	Productive	Non-productive	Indeterminate
General corporate purpose (except where purpose can be definitely ascertained)			x
Refunding		x	
Construction, additions, etc.	x		
Acquisitions		x	
Working capital		x	
Funds for interest purposes		x	
New capital, new plants, etc.	x		
Construction of building, etc.	x		
Real estate mortgage			x
Capital for insurance companies, banks, etc.		x	
New equipment	x		

Sometimes the purpose of the issue is repayment of bank loans contracted for the purpose of capital extension or improvement. Such cases are seldom clearly explained in the circulars and there is risk of a "productive" issue being placed in the "non-productive" class. Some effort is made to ascertain whether what appears to be formally a "non-productive" issue should really be classed as "productive"; but this is not done with any exactness. If there is a net error it is somewhat in the direction of understatement of "productive" issues, but it may be offset by unintentional overstatement in other cases.

The compilation excludes all federal issues but includes state and municipal issues of $100,000 or more, which usually comprise about 90 per cent of such issues. The remainder is apportioned on the basis of results obtained for the larger issues. Considerable difficulty in classification has arisen for the period since the depression began. Up to about 1930 practically all state and municipal issues, except of course refunding issues, were considered "productive." Since then a more careful examination of the purpose of issue has had to be made because most of the state and municipal financing has been for financial or relief purposes.

The classification of all issues into "productive," "non-productive," and "indeterminate" shows that the last group is usually relatively small, comprising on the average only from about 5 to 6 per cent of the total. It has, therefore, been considered relatively safe to assume that one-half of the "indeterminate" group has been of a "productive" character. Accordingly, 50 per cent of the "indeterminate" amount is added to the strictly "productive" amount and the total represents the final "productive" amount.

In order to determine the ratio of "productive" to all issues, the former is related to a total of all issues which is obtained from the *Chronicle* and which includes all new issues (other than refunding) except United States government, territorial, and all foreign government (including Canadian) and corporate issues.

In view of the character of the material and the element of judgment involved it is apparent that the compilation of "productive" issues cannot pretend to be anything more than a reasonable approximation to the truth.

The results of Moody's analysis are given in the following tables. The figures were revised in February 1939. The data have been kindly furnished by Moody's Investors Service.

New Domestic Issues: Productive and Total Less Refunding
(In millions of dollars)

Year and Month	Total Less Refunding			Productive			*Productive as a Percentage of Total Less Refunding*		
	Corporate	Municipal	Total	Corporate	Municipal	Total	*Corporate*	*Municipal*	*Total*
1921:									
Jan.	197	86	283	87	86	173	*44.2*	*100.0*	*61.1*
Feb.	172	64	236	74	64	138	*43.0*	*100.0*	*58.5*
Mar.	114	49	163	18	49	67	*15.8*	*100.0*	*41.1*
Apr.	171	87	258	95	87	182	*55.6*	*100.0*	*70.5*
May	172	63	235	51	63	114	*29.7*	*100.0*	*48.5*
June	59	111	170	25	111	136	*42.4*	*100.0*	*80.0*
July	159	104	263	133	104	237	*83.6*	*100.0*	*90.1*
Aug.	65	94	159	32	94	126	*49.2*	*100.0*	*79.2*
Sept.	152	88	240	125	88	213	*82.2*	*100.0*	*88.8*
Oct.	56	114	170	34	114	148	*60.7*	*100.0*	*87.1*
Nov.	156	119	275	119	119	238	*76.3*	*100.0*	*86.5*
Dec.	229	219	448	71	219	290	*31.0*	*100.0*	*64.7*
Total	1,701	1,199	2,900	864	1,199	2,063	*50.8*	*100.0*	*71.1*
1922:									
Jan.	195	108	303	127	108	235	*65.1*	*100.0*	*77.6*
Feb.	116	66	182	71	66	137	*61.2*	*100.0*	*75.3*
Mar.	173	114	287	94	114	208	*54.3*	*100.0*	*72.5*
Apr.	249	137	386	163	137	300	*65.5*	*100.0*	*77.7*
May	288	106	394	145	106	251	*50.3*	*100.0*	*63.7*
June	251	118	369	160	118	278	*63.7*	*100.0*	*75.3*
July	122	91	213	68	91	159	*55.7*	*100.0*	*74.6*
Aug.	98	63	161	47	63	110	*48.0*	*100.0*	*68.3*
Sept.	285	98	383	224	98	322	*78.6*	*100.0*	*84.1*
Oct.	161	69	230	108	69	177	*67.1*	*100.0*	*77.0*
Nov.	98	42	140	42	42	84	*42.9*	*100.0*	*60.0*
Dec.	175	64	239	86	64	150	*49.1*	*100.0*	*62.8*
Total	2,211	1,077	3,287	1,335	1,077	2,412	*60.4*	*100.0*	*73.4*
1923:									
Jan.	442	96	538	187	96	283	*42.3*	*100.0*	*52.6*
Feb.	205	77	282	126	77	203	*61.5*	*100.0*	*72.0*
Mar.	221	67	288	134	67	201	*60.6*	*100.0*	*69.8*
Apr.	242	80	322	175	80	255	*72.3*	*100.0*	*79.2*
May	165	94	259	115	94	209	*69.7*	*100.0*	*80.7*
June	205	159	364	139	159	298	*67.8*	*100.0*	*81.9*
July	130	67	197	66	67	133	*50.8*	*100.0*	*67.5*
Aug.	112	54	166	68	54	122	*60.7*	*100.0*	*73.5*
Sept.	137	56	193	85	56	141	*62.0*	*100.0*	*73.1*
Oct.	206	85	291	133	85	218	*64.6*	*100.0*	*74.9*
Nov.	309	97	406	262	97	359	*84.8*	*100.0*	*88.4*
Dec.	262	112	374	134	112	246	*51.1*	*100.0*	*65.8*
Total	2,635	1,043	3,678	1,624	1,043	2,667	*61.6*	*100.0*	*72.5*
1924:									
Jan.	271	99	370	154	99	253	*56.8*	*100.0*	*68.4*
Feb.	227	94	321	147	94	241	*64.8*	*100.0*	*75.1*
Mar.	253	100	353	194	100	294	*76.7*	*100.0*	*83.3*
Apr.	249	131	380	166	131	297	*66.7*	*100.0*	*78.2*
May	447	117	564	394	117	511	*88.1*	*100.0*	*90.6*
June	249	241	490	179	241	420	*71.9*	*100.0*	*85.7*
July	159	115	274	112	115	227	*70.4*	*100.0*	*82.8*
Aug.	157	107	264	95	107	202	*60.5*	*100.0*	*76.5*
Sept.	215	121	336	155	121	276	*72.1*	*100.0*	*82.1*
Oct.	326	91	417	134	91	225	*41.1*	*100.0*	*54.0*
Nov.	228	73	301	99	73	172	*43.4*	*100.0*	*57.1*
Dec.	248	90	338	112	90	202	*45.2*	*100.0*	*59.8*
Total	3,029	1,380	4,409	1,941	1,380	3,321	*64.1*	*100.0*	*75.3*
1925:									
Jan.	363	133	496	251	133	384	*69.1*	*100.0*	*77.4*
Feb.	374	77	451	219	77	296	*58.6*	*100.0*	*65.6*
Mar.	243	108	351	115	108	223	*47.3*	*100.0*	*63.5*
Apr.	375	89	464	124	89	213	*33.1*	*100.0*	*45.9*
May	250	187	437	142	187	329	*56.8*	*100.0*	*75.3*
June	288	138	426	156	138	294	*54.2*	*100.0*	*69.0*
July	280	132	412	160	132	292	*57.1*	*100.0*	*70.9*
Aug.	186	80	266	77	80	157	*41.4*	*100.0*	*59.0*
Sept.	263	112	375	105	112	217	*39.9*	*100.0*	*57.9*
Oct.	258	74	332	116	74	190	*45.0*	*100.0*	*57.2*
Nov.	321	66	387	180	66	246	*56.1*	*100.0*	*63.6*
Dec.	404	157	561	179	157	336	*44.3*	*100.0*	*59.9*
Total	3,604	1,352	4,956	1,824	1,352	3,176	*50.6*	*100.0*	*64.1*

NEW DOMESTIC ISSUES: PRODUCTIVE AND TOTAL LESS REFUNDING—*Continued*

Year and Month	Total Less Refunding			Productive			*Productive as a Percentage of Total Less Refunding*		
	Corporate	Municipal	Total	Corporate	Municipal	Total	*Corporate*	*Municipal*	*Total*
1926:									
Jan.	493	68	561	173	68	241	*35.1*	*100.0*[a]	*43.0*
Feb.	324	171	495	148	171	319	*45.7*	*100.0*	*64.4*
Mar.	416	115	531	167	115	282	*40.1*	*100.0*	*53.1*
Apr.	285	109	394	111	109	220	*38.9*	*100.0*	*55.8*
May	415	136	551	275	136	411	*66.3*	*100.0*	*74.6*
June	307	135	442	155	135	290	*50.5*	*100.0*	*65.6*
July	317	89	406	197	89	286	*62.1*	*100.0*	*70.4*
Aug.	141	71	212	53	71	124	*37.6*	*100.0*	*58.5*
Sept.	223	136	359	98	136	234	*43.9*	*100.0*	*65.2*
Oct.	270	102	372	149	102	251	*55.2*	*100.0*	*67.5*
Nov.	259	69	328	117	69	186	*45.2*	*100.0*	*56.7*
Dec.	305	142	447	158	142	300	*51.8*	*100.0*	*67.1*
Total	3,754	1,344	5,098	1,801	1,344	3,145	*48.0*	*100.0*	*61.7*
1927:									
Jan.	442	203	645	201	203	404	*45.5*	*100.0*	*62.6*
Feb.	526	76	602	287	76	363	*54.6*	*100.0*	*60.3*
Mar.	361	87	448	187	87	274	*51.8*	*100 0*	*61.2*
Apr.	314	128	442	137	128	265	*43.6*	*100.0*	*60.0*
May	421	213	634	162	213	375	*38.5*	*100.0*	*59.1*
June	482	155	637	142	155	297	*29.5*	*100.0*	*46.6*
July	278	85	363	96	85	181	*34.5*	*100.0*	*49.9*
Aug.	248	91	339	69	91	160	*27.8*	*100.0*	*47.2*
Sept.	302	114	416	99	114	213	*32.8*	*100.0*	*51.2*
Oct.	446	117	563	198	117	315	*44.4*	*100.0*	*56.0*
Nov	279	97	376	50	97	147	*17.9*	*100.0*	*39.1*
Dec.	558	109	667	153	109	262	*27.4*	*100.0*	*39.3*
Total	4,657	1,475	6,132	1,781	1,475	3,256	*38.2*	*100.0*	*53.1*
1928:									
Jan.	347	98	445	95	98	193	*27.4*	*100.0*	*43.4*
Feb.	390	130	520	95	130	225	*24.4*	*100.0*	*43.3*
Mar.	356	126	482	100	126	226	*28.1*	*100.0*	*46.9*
Apr.	449	123	572	136	123	259	*30.3*	*100.0*	*45.3*
May	466	152	618	105	152	257	*22.6*	*100.0*	*41.6*
June	456	121	577	249	121	370	*54.6*	*100.0*	*64.1*
July	273	80	353	82	80	162	*30.0*	*100.0*	*45.9*
Aug.	182	68	250	93	68	161	*51.1*	*100.0*	*64.4*
Sept.	329	64	393	83	64	147	*25.2*	*100.0*	*37.4*
Oct.	557	99	656	121	99	220	*21.7*	*100.0*	*33.5*
Nov.	654	170	824	133	170	303	*20.3*	*100.0*	*36.8*
Dec.	890	148	1,038	203	148	351	*22.8*	*100.0*	*33.8*
Total	5,346	1,379	6,725	1,495	1,379	2,874	*28.0*	*100.0*	*42.7*
1929:									
Jan.	804	74	878	78	74	152	*8.7*	*100.0*	*17.3*
Feb.	800	68	868	173	68	241	*21.6*	*100.0*	*27.8*
Mar.	668	104	772	77	104	181	*11.5*	*100.0*	*23.4*
Apr.	571	91	662	142	91	233	*24.9*	*100.0*	*35.2*
May	899	175	1,074	288	175	463	*32.0*	*100.0*	*43.1*
June	463	150	613	77	150	227	*16.6*	*100.0*	*37.0*
July	768	84	852	153	84	237	*19.9*	*100.0*	*27.8*
Aug.	757	80	837	94	80	174	*12.4*	*100.0*	*20.8*
Sept.	1,201	99	1,300	259	99	358	*21.6*	*100.0*	*27.5*
Oct.	676	118	794	269	118	387	*39.8*	*100.0*	*48.7*
Nov.	163	84	247	62	84	146	*38.0*	*100.0*	*59.1*
Dec.	232	289	521	115	289	404	*49.6*	*100.0*	*77.5*
Total	8,002	1,418	9,420	1,787	1,418	3,205	*22.3*	*100.0*	*34.0*
1930:									
Jan.	611	108	719	312	108	420	*51.1*	*100.0*	*58.4*
Feb.	387	80	467	158	80	238	*40.8*	*100.0*	*51.0*
Mar.	516	123	639	279	123	402	*54.1*	*100.0*	*62.9*
Apr.	582	149	731	91	149	240	*15.6*	*100.0*	*32.8*
May	847	140	987	501	140	641	*59.1*	*100.0*	*64.9*
June	378	148	526	120	148	268	*31.7*	*100.0*	*51.0*
July	367	107	474	174	107	281	*47.4*	*100.0*	*59.3*
Aug.	83	83	166	15	83	98	*18.1*	*100.0*	*59.0*
Sept.	284	76	360	124	76	200	*43.7*	*100.0*	*55.6*
Oct.	127	151	278	64	151	215	*50.4*	*100.0*	*77.3*
Nov.	136	85	221	37	85	122	*27.2*	*100.0*	*55.2*
Dec.	164	184	348	64	184	248	*39.0*	*100.0*	*71.3*
Total	4,483	1,434	5,917	1,939	1,434	3,373	*43.3*	*100.0*	*57.0*

NEW DOMESTIC ISSUES: PRODUCTIVE AND TOTAL LESS REFUNDING—*Continued*

Year and Month	Total Less Refunding			Productive			*Productive as a Percentage of Total Less Refunding*		
	Corporate	Municipal	Total	Corporate	Municipal	Total	*Corporate*	*Municipal*	*Total*
1931:									
Jan.	280	49	329	168	49	217	60.0	100.0[a]	66.0
Feb.	74	118	192	48	118	166	64.9	100.0	86.5
Mar.	260	279	539	153	279	432	58.8	100.0	80.1
Apr.	267	102	369	80	102	182	30.0	100.0	49.3
May	161	173	334	99	173	272	61.5	100.0	81.4
June	106	119	225	52	119	171	49.1	100.0	76.0
July	115	93	208	55	93	148	47.8	100.0	71.2
Aug.	46	74	120	20	74	94	43.5	100.0	78.3
Sept.	106	114	220	70	114	184	66.0	100.0	83.6
Oct.	17	16	33	1	16	17	5.9	100.0	51.5
Nov.	50	54	104	10	54	64	20.0	100.0	61.5
Dec.	67	44	111	40	44	84	59.7	100.0	75.7
Total	1,551	1,235	2,786	796	1,235	2,031	51.3	100.0	72.9
1932:									
Jan.	47	138	185	33	138	171	70.2	100.0	92.4
Feb.	39	35	74	29	35	64	74.4	100.0	86.5
Mar.	48	109	157	36	109	145	75 0	100.0	92.4
Apr.	15	41	46	11	31	42	73 0	100.0	91.3
May	7	84	91	5	67	72	71.4	79.8	79.1
June	4	80	84	4	59	63	100.0	73.8	75 0
July	63	27	90	55	21	76	87.3	77.8	84.4
Aug.	26	34	60	0	27	27	0.0	79.4	45.0
Sept.	7	58	65	5	34	39	71.4	58.6	60.0
Oct.	48	38	86	17	24	41	35.4	63.2	47.7
Nov.	11	29	40	7	15	22	63.6	51.7	55.0
Dec.	10	101	111	1	50	51	10.0	49.5	45.9
Total	325	762	1,087	203	610	813	62.5	80.1	74.8
1933:									
Jan.	22	33	55	18	8	26	81.8	24.2	47.3
Feb.	1	17	18	0	11	11	0.0	64.7	61.1
Mar	3	13	16	2	8	10	66.7	61.5	62.5
Apr.	17	9	26	0	4	4	0.0	44 4	15.4
May	4	40	44	3	10	13	75.0	25.0	29.5
June	12	97	109	5	31	36	41.7	32.0	33.0
July	53	29	82	42	11	53	79.2	37.9	64.6
Aug	14	32	46	9	8	17	64.3	25.0	37.0
Sept.	9	37	46	7	23	30	77.8	62.2	65.2
Oct.	3	55	58	3	36	39	100.0	65.5	67.2
Nov.	7	80	87	5	2	7	71.4	2.5	8.0
Dec.	16	41	57	12	4	16	75.0	9.8	28.1
Total	161	483	644	106	156	262	65.8	32.3	40.7
1934:									
Jan.	6	37	43	6	13	19	100.0	35.1	44.2
Feb.	13	61	74	1	14	15	7.7	23.0	20.3
Mar.	14	83	97	9	21	30	64.3	25.3	30.9
Apr.	28	98	126	16	51	67	57.1	52.0	53.2
May	29	58	87	4	25	29	13.8	43.1	33.3
June	9	98	107	1	24	25	11.1	24.5	23.4
July	20	88	108	1	79	80	5.0	89.8	74.1
Aug.	8	19	27	3	10	13	37.5	52.6	48.1
Sept	7	32	39	3	31	34	42.9	96.9	87.2
Oct	0	38	38	0	28	28	0.0	73.7	73.7
Nov	8	86	94	4	27	31	50.0	31.4	33.0
Dec.	35	104	139	15	58	73	42.9	55.8	52.5
Total	178	803	981	63	381	444	35.4	47.4	45.3
1935:									
Jan.	5	81	86	3	37	40	60.0	45.7	46.5
Feb.	7	44	51	1	18	19	14.3	40.9	37.3
Mar.	8	97	105	0	59	59	0.0	60.8	56.2
Apr.	22	64	86	3	22	25	13.6	34.4	29.1
May	45	37	82	13	27	40	28.9	73.0	48.8
June	14	42	56	11	18	29	78.6	42.9	51.8
July	55	72	127	2	57	59	3.6	79.2	46.5
Aug.	30	33	63	17	21	38	56.7	63.6	60.3
Sept.	45	128	173	12	39	51	26.7	30.5	29.5
Oct.	73	59	132	6	35	41	8.2	59.3	31.1
Nov.	33	85	118	3	31	34	9.1	36.5	28.8
Dec.	67	114	181	23	66	89	34.3	57.9	49.2
Total	403	855	1,258	94	430	524	23.3	50.3	41.7

New Domestic Issues: Productive and Total Less Refunding—*Continued*

Year and Month	Total Less Refunding			Productive			*Productive as a Percentage of Total Less Refunding*		
	Corporate	Municipal	Total	Corporate	Municipal	Total	*Corporate*	*Municipal*	*Total*
1936:									
Jan.	65	51	116	36	30	66	55.4	58.8	56.9
Feb.	13	90	103	4	67	71	30.8	74.4	68.9
Mar.	59	58	117	10	26	36	16.9	44.8	30.8
Apr.	128	48	176	40	26	66	31.3	54.2	37.5
May	38	68	106	26	34	60	68.4	50.0	56.6
June	152	64	216	38	26	64	25.0	40.6	29.6
July	70	33	103	10	23	33	14.3	69.7	32.0
Aug.	171	46	217	19	29	48	11.1	63.0	22.1
Sept.	75	103	178	54	35	89	72.0	34.0	50.0
Oct.	95	78	173	22	34	56	23.2	43.6	32.4
Nov.	109	49	158	64	39	103	58.7	79.6	65.2
Dec.	218	48	266	56	23	79	25.7	47.9	29.7
Total	1,191	735	1,926	379	392	771	31.8	53.3	40.0
1937:									
Jan.	96	147	243	27	32	59	28.1	21.8	24.3
Feb.	152	34	186	92	26	118	60.5	76.5	63.4
Mar.	139	47	186	101	38	139	72.7	80.9	74.7
Apr.	81	70	151	51	56	107	63.0	80.0	70.9
May	81	37	118	48	27	75	59.3	73.0	63.6
June	274	91	365	150	42	192	54.7	46.2	52.6
July	82	76	158	32	59	91	39.0	77.6	57.6
Aug.	51	28	79	33	12	45	64.7	42.9	57.0
Sept.	113	41	154	24	26	50	21.2	63.4	32.5
Oct.	67	27	94	25	24	49	37.3	88.9	52.1
Nov.	36	43	79	29	34	63	80.6	79.1	79.7
Dec.	50	70	120	23	48	71	46.0	68.6	59.2
Total	1,222	712	1,934	635	424	1,059	52.0	59.6	54.8
1938:									
Jan.	46	41	87	25	27	52	54.3	65.9	59.7
Feb.	41	40	81	0	30	30	0	75.0	37.0
Mar.	24	94	118	7	59	66	29.2	62.8	55.9
Apr.	12	45	57	5	32	37	41.7	71.1	64.9
May	36	88	124	11	66	77	30.6	75.0	62.1
June	199	130	329	132	38	170	66.3	29.2	51.7
July	129	44	173	76	27	103	58.9	61.4	59.5
Aug.	125	55	180	38	44	82	30.4	80.0	45.6
Sept.	85	51	136	60	43	103	70.6	84.3	75.7
Oct.	64	101	165	35	91	126	54.7	90.1	76.4
Nov.	43	151	194	17	101	118	39.5	66.9	60.8
Dec.	47	116	163	11	89	100	23.4	76.7	61.3
Total	851	956	1,807	417	647	1,064	49.0	67.7	58.9

[a] In the earlier period, up to May 1932, municipal "productive" was estimated only approximately by assuming it to be equal to municipal "total less refunding."

APPENDIX B

MONEY-RATE INDEXES

Charts given in Chapter IV show the movement of money rates in various sections of the American investment market. Certain comparisons are also given of rates in the American and foreign markets. Basic data for those charts are brought together in the three tables of the present appendix. Sources of the data are also indicated in the footnotes to the tables.

1. Yields and Costs of New Railway Issues, 1925–38[a]

I. AVERAGES FOR ALL PUBLIC ISSUES[b]
(All figures are in percentages)

Year Sold	Bonds		Equipment Obligations	
	Yield to Public	Cost to Company	Yield to Public	Cost to Company
1925	5.39	5.62	4.85	5.14
1926	5.10	5.28	4.71	4.95
1927	4.94	5.10	4.49	4.59
1928	4.598	4.726	4.314	4.42
1929	5.001	5.197	5.125	5.276
1930	4.771	4.915	4.62	4.748
1931	4.74	4.87	3.98	4.06
1932	—	—	5.04	5.33
1933	5.00	5.18	—	—
1934	4.44	4.57	—	—
1935	3.936	4.079	—	—
1936	3.715	3.848	3.77	3.99
1937	3.773	3.895	—	—
1938	—	—	—	—

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[a] Compiled from dockets for individual issues in the Interstate Commerce Commission finance reports.

[b] Averages for 1920–25 will be found in the 1930 Annual Report of the Interstate Commerce Commission, p. 11.

II. BONDS WITH LOWEST YIELD TO THE PUBLIC

Year Sold	Yield to Public (Per cent)	Cost to Company (Per cent)	Company	Issue	Amount Authorized and Sold	Maturity (Years)	Price to Public (Per cent)	Price to Company (Per cent)
1925......	4.55	4.73	Southern Pacific	1st rfdg. mtge. 4% gold	$6,425,500	29½	91.00	88.50
1926......	4.50	4.61	Norfolk & Western	Divn. 1st lien & gen. mtge. 4%	6,000,000	18	93.75	92.55
1927......	4.156	4.233	Dela., Lack. & Western	M&E RR—1st rfdg. g. mtge. 3½%	9,871,000	73	85.00	83.50
1928......	4.07	4.16	Central RR of N. J.	Gen. mtge. 4% gold	5,000,000	59½	98.50	96.50
1929......	4.75	4.88	Chesapeake & Ohio	Rfdg. & impr. mtge. 4½% g. Ser. A.	24,784,000	64¾	95.00	92.50
1930......	4.00	4.07	Boston Terminal Co.	1st mtge. 4% gold	1,163,000	20	100.00	99.09
1931......	4.35	4.37	Indianapolis Union	Rfdg. & impr. mtge. 4½% gold	1,000,000	49½	103.05	102.618
1932......	No public issue.							
1933......	5.00	5.18	Cin. Union Terminal	1st mtge. 5% gold Ser. C.	12,000,000	24¼	100.00	97.50
1934......	4.00	4.21	Bang. & Aroostook	Consol. rfdg. mtge. 4%	2,000,000	16¾	100.00	97.50
1935......	3.81	3.94	New York Central	T&OC rfdg. & impr. 3¾% mtge. Ser. A.	12,500,000[c]	25	99.00	97.00
1936[d].....	3.33	3.48	Chgo. Union Sta.	3½% guar.	7,000,000	15	102.00	100.25
1937......	3.32	3.42	Union Terminal Co. Dallas, Tex.	1st mtge. 3¾%	5,000,000	30	108.15	106.15
1938......	No public issue.							

[c] Delivered to N.Y. C. RR at par, July 10, 1935.

[d] The low cost public issue was an Indianapolis Union rfdg. & impr. mtge. Ser. B 3½% issue; amount $4,714,000; yield 3.35; cost 3.403; maturity 49⅝ years; price to public 103.625; price to company 102.33.

III. BONDS WITH HIGHEST YIELD TO THE PUBLIC

Year Sold	Yield to Public (Per cent)	Cost to Company (Per cent)	Company	Issue	Amount Authorized	Maturity (Years)	Price to Public (Per cent)	Price to Company (Per cent)
1925	6.47	6.71	Seaboard Air Line	1st consol. mtge. 6% gold, Ser. A.	$10,000,000	19¾	94.75	92.25
1926	6.40	6.63	Seaboard Air Line	1st consol. mtge. 6% gold, Ser. A.	8,000,000	19¼	95.50	93.25
1927[e]	6.35	6.71	Seaboard Air Line	1st mtge. 6% gold Ser. B. of SAF Ry.	2,000,000	8⅓	97.75	95.50
1928	5.36	5.685	Akron, Cant. & Youngstown	Genl. & rfdg. mtge. 5½% gold, Ser. B.	500,000	17	101.50	98.00
1929	6.14	6.48	Tennessee Central	1st mtge. 6% gold Ser. B.	410,000	17½	98.50	95.00
1930	6.13	6.96	Bellefonte Central	1st mtge. 6% s.f. gold	200,000	19	98.50	90.00
1931[f]	5.29	5.44	Missouri Pacific	1st & rfdg. mtge. 5% gold Ser. I	61,200,000	49½	95.00	92.50
1932	No public issue.							
1933	Only 1 public issue. See Section I above.							
1934	5.33	5.50	Chicago & Western Indiana	1st & rfdg. 5½% mtge. Ser. A	6,340,000[g]	27¾	102.50	100.00
1935	5.02	5.41	Litchfield & Madison	1st mtge. 5% s.f.	1,000,000[h]	24½	99.75	94.50
1936	4.54	4.76	Chicago & Illinois Midland	1st mtge. s.f. Ser. A 4½%	5,500,000	19½	99.50	96.75
1937	4.74	4.83	Kansas, Oklahoma & Gulf[i]	1st mtge. 5% Series 1978	422,000	41⅓	104.75	103.00

[e] There were $2,194,000 delivered to S.A.L. at par jointly by East & West Coast Ry., Fla., West. & Northern RR, and Seaboard-All Florida Ry., March 23, 1927.

The public issue with the highest percentage cost to borrower was a Sumpter Valley 6% serial gold loan, amount $650,000; yield 6.15; cost 7.46; maturity 2 to 15 years; price to public 99.08; price to company 91.50.

[f] The public issue with highest percentage cost to borrower was a Louisville & Nashville 10 yr. secured 5% gold loan, amount $10,000,000; yield 5.26; cost 5.56; maturity 10 years; price to public 98.00; price to company 95.75.

[g] Amount sold was $6,100,000, with other $240,000 not to be issued.

[h] $55,000 canceled and cremated.

[i] $297,000 sold publicly, and $25,000 placed privately.

IV. HIGHEST AND LOWEST PERCENTAGE COST ON ALL NEW BONDS
Whether Publicly Offered, Privately Sold, or Exchanged[j]

Year	High	Low
1925	7.00	3.50
1926	7.47	4.00
1927	7.46	4.00
1928	6.79	4.00
1929	7.00	4.00
1930	6.96	4.07
1931	7.63	4.37
1932	8.09	4.50
1933	6.07	4.00
1934	6.00	3.87
1935	6.31	3.42
1936	6.00	2.94
1937	6.00	2.62
1938	6.00	3.00

V. YIELDS AND COSTS, NEW PUBLICLY OFFERED EQUIPMENT OBLIGATIONS
(Figures are in percentages)

Year Sold	Highest Yield Issue		Lowest Yield Issue	
	Yield to Public	Cost to Company	Yield to Public	Cost to Company
1925	5.60	6.36	[k]	4.75
1926	5.25	5.41	4.50	4.57
1927	4.78	5.11	4.195	4.29
1928	4.90	5.03	4.14	4.24
1929	5.41	5.67	4.85	5.02
1930	5.156	5.625	[k]	4.508
1931	4.08	4.16	3.74	3.79
1932	5.19	5.46	4.77	5.10
1933	[l]	—	[l]	—
1934	[l]	—	[l]	—
1935	[k]	3.24	[k]	2.84
1936	3.77	3.99	[k]	2.003
1937	[k]	3.38	[k]	1.49

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[j] Including new bonds given for matured or defaulted bonds, or for bonds of other companies.

[k] Yields to public varied according to maturities.

[l] No public issues in 1933 and 1934.

2. SHORT-TERM MONEY RATES, 1924–38

Index	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Call loans[a]	3.08	4.20	4.50	4.06	6.04	7.61	2.94	1.74	2.05	1.15	1.00	0.56	0.91	1.00	1.00
Commercial paper[b]	3.91	4.03	4.24	4.01	4.84	5.78	3.56	2.64	2.84	1.87	1.14	0.91	0.75	0.94	0.93
Over the counter:[c]															
Southern and Western cities (27)	5.71	5.58	5.61	5.60	5.70	6.14	5.72	5.39	5.62	5.56	5.17	4.69	4.35	4.17	4.11
Northern and Eastern cities (8)	5.11	4.98	5.06	4.88	5.34	6.04	5.07	4.61	5.05	5.83	4.29	3.87	3.52	3.36	3.32
New York City	4.60	4.47	4.67	4.53	5.15	5.88	4.69	4.22	4.49	4.02	3.33	2.70	2.49	2.43	2.32
U. S. Treasury bills and certificates[d]	2.77	3.03	3.25	3.11	3.97	4.38	2.23	1.15	0.78	0.26	0.24	0.14	0.14	0.45	0.053
Acceptance rates:[e]															
England (London)	3.46	4.13	4.45	4.24	4.16	5.26	2.57	3.60	1.87	0.68	0.82	0.58	0.60	0.58	0.63
France (Paris)	. .	5.69	5.66	2.91	3.02	3.47	2.35	1.56	1.30	1.63	2.03	3.24	3.68	3.83	2.75
Germany (Berlin)	. . .	7.65	4.92	5.49	6.51	6.86	4.42	6.35	4.93	3.86	3.78	3.15	2.96	2.91	2.88
Netherlands (Amsterdam)	4.20	3.10	2.84	3.67	4.23	4.82	2.08	1.47	0.81	1.10	0.89	3.18	1.75	0.30	0.19
Switzerland (Zurich)	3.50	2.28	2.52	3.27	3.33	3.32	2.02	1.43	1.52	1.50	1.50	2.19	2.06	1.04	1.00
U. S. (New York City)	2.97	3.29	3.59	3.45	4.09	5.03	2.46	1.58	1.28	0.60	0.25	0.13	0.15	0.43	0.44

[a] Average of daily renewal rates for call loans on the New York Stock Exchange, as computed by the Federal Reserve Board, and published in Standard Trade and Securities Service.

[b] Average of high and low weekly rates for 4–6 month, choice, double name paper, as computed and published by the Standard Statistics Co.

[c] Weighted averages of prevailing rates charged customers by banks in principal cities, as computed by the Federal Reserve Board and published in the *Federal Reserve Bulletin* and annual reports of the Board.

[d] This series shows rates for new issues of various terms as follows: 1924–33, rates for 3–6 month bills and certificates; 1934, for 6-month bills; 1935–38, 9-month bills. Data for 1924–31, from *Survey of Current Business, 1932 Annual Supplement*, pp. 98–99; for 1932–38, from *Federal Reserve Bulletin* (1933–38).

[e] Open-market discount rates for bankers' acceptances, as compiled by the Board of Governors of the Federal Reserve System. Figures for 1924–37 are published in the *Annual Report* for 1937, p. 103, and for 1938 in current numbers of the *Federal Reserve Bulletin.*

3. LONG-TERM MONEY RATES, 1924–38

Index	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Railroad bonds:															
A1+ rating[a]	...	4.78	4.65	4.48	4.42	4.74	4.58	4.49	5.45	4.63	4.07	3.64	3.36	3.45	3.55
A rating[a]	...	6.12	6.00	5.85	5.69	5.86	5.92	6.40	7.12	6.11	5.03	4.65	4.26	4.28	5.25
B rating[a]	...	7.51	7.02	6.38	6.98	7.61	8.10	9.46	[b]	8.38	9.19	9.14	6.60	7.31	[b]
40 bonds[c]	5.90	5.51	5.13	4.83	4.85	5.18	4.96	6.09	7.61	6.09	4.96	4.95	4.24	4.46	5.21
Public utility bonds:															
A1+ rating[a]	...	4.92	4.77	4.63	4.51	4.73	4.61	4.36	4.81	4.47	4.00	3.43	3.23	3.12	2.88
B rating[a]	...	7.92	7.89	6.72	6.58	7.19	7.62	9.00	9.26	9.42	9.17	7.25	6.12	7.13	7.93
40 bonds[c]	5.61	5.29	5.11	4.96	4.87	5.14	5.05	5.27	6.30	6.25	5.40	4.43	3.88	3.93	3.87
Industrial bonds:															
A1+ rating[a]	...	5.04	4.88	4.72	4.69	4.88	4.72	4.64	5.40	4.82	4.14	3.64	3.32	3.33	3.14
B rating[a]	...	8.75	8.22	7.33	6.98	7.35	8.24	9.39	9.07	9.21	9.28	8.11	6.86	[b]	[b]
40 bonds[c]	5.90	5.61	5.37	5.10	5.10	5.31	5.25	6.08	6.71	5.34	4.52	4.02	3.50	3.55	3.50
Municipal bonds:															
11 1st-grade cities[d]	. .	...	..	. .	3.98	4.28	4.07	3.87	4.33	4.29	3.73	3.00	2.63	2.67	2.58
20 cities[d]	4.23	4.13	4.14	4.01	4.02	4.31	4.13	4.01	4.79	5.07	4.36	3.43	2.91	2.91	3.02
Cities rated poor risks[e]	4.48	4.33	4.34	4.19	4.26	4.95	4.56	4.51	5.94	7.08	5.70	4.15	3.28	...	...
Government bonds:															
England, 2½% consols[f]	4.38	4.44	4.54	4.55	4.47	4.61	4.49	4.40	3.75	3.40	3.10	2.89	2.94	3.29	3.39
France, 3% perpetual rentes[f]	...	...	6.17	5.32	4.46	3.96	3.42	3.46	3.82	4.35	4.12	3.73	3.87	3.90	4.02
U. S. Treasury[g]	4.06	3.86	3.68	3.34	3.33	3.60	3.29	3.34	3.68	3.31	3.12	2.79	2.65	2.68	2.56
Common stock yields:[h]															
Industrials (125)	. . .	.	.	.		4.0	4.9	6.4	7.3	3.7	3.4	3.5	3.4	4.8	3.9
Rails (25)	.	.		. .	.	4.4	5.6	7.8	6.3	2.7	3.0	4.0	2.7	4.3	5.3
Utilities (25)	.	.		.		2.6	3.7	5.4	8.0	6.9	6.9	6.3	4.5	5.5	6.4
Banks (15)	.	.			.	1.7	2.8	5.0	7.0	6.1	5.6	4.8	3.5	3.6	5.0
Insurance (10)	...	...	. .	. .	. .	3.2	4.4	6.7	9.4	5.4	3.9	3.7	3.3	4.1	4.3
Industrial preferred stock yields (20 stocks)[i]	6.08	5.90	5.78	5.51	5.35	5.54	5.79	5.81	7.32	6.71	5.81	5.23	5.04	5.14	5.17

[a] Averages (of 12 monthly rates calculated for about the 20th of each month) are based on yield to maturity of all active bonds listed in Standard Bond Investments. They exclude unusual yields due to conversion privileges, redemption, early maturity, or other special causes. Computed and published by the Standard Statistics Co.

[b] Quotations are available on an insufficient number of issues to give average yield.

[c] Unweighted arithmetic averages of the yields for each of the 40 bonds, computed on the basis of daily closing prices, by Moody's Investors Service. Averages for 1924–35 are published in the *Survey of Current Business*, Nov. 1937, p. 20; for 1937–38, in the *Federal Reserve Bulletin*, April 1939, p. 316.

[d] The Bond Buyer's Index of Municipal Bond Values. The index is the result of averaging the market value expressed in "basis" of bonds. Specific issues are not used in compiling the averages. In ascertaining the market for bonds of a given city, bonds of extremely short or extremely long maturities are disregarded, as well as bonds selling at abnormal premiums or discounts. No substitutions have been made in the list used in the index. The list of 20 cities is as follows, the asterisk marking those used in the index for "11 first grade cities."

New York, N. Y.
Chicago,Ill.
Philadelphia, Pa.
*St. Louis, Mo.
*Boston, Mass.
Cleveland,Ohio
*Baltimore, Md.
*Pittsburgh, Pa.
Detroit, Mich.
*Buffalo, N. Y.
*San Francisco, Calif.
*Los Angeles, Calif.
*Milwaukee, Wis.
*Cincinnati, Ohio
Newark, N. J.
New Orleans, La.
*Kansas City, Mo.
*Minneaplois, Minn.
Seattle, Wash.
Jersey City, N. J.

[e] Unpublished index compiled by George W. Edwards.

[f] League of Nations, *Monthly Bulletin of Statistics*, May 1937, pp. 197–98; the (London) *Economist Trade Supplement*, current numbers.

[g] Average market yields of all outstanding bonds due or callable after 12 years, as given in the Annual Report of the Board of Governors of the Federal Reserve System, 1938, p. 68.

[h] Based on the weighted average yields of the indicated numbers of common stocks, as of the last day of each month. The weighted average yield consists of the aggregate annual common dividends being paid by the companies included, as of each given date, divided by the aggregate market valuation of all outstanding common shares of these companies, as of the same date. The comparison is for the indicated numbers of identical companies, regardless of whether a particular company was on a dividend-paying basis or not at any given time. Computed by Moody's Investors Service and published in the *Survey of Current Business*, Sept. 1936, p. 18, and currently thereafter.

[i] These rates are based on average prices for the stocks concerned. For the years 1924–29 arithmetic averages were computed of the monthly high and low prices of eachi ssue, conversion having first been made to a price equivalent to a 100 dollar par and a 7 dollar annual dividend rate. Compiled and published by the Standard Statistics Co.

APPENDIX C

CORPORATION FINANCE

The data presented in this appendix are related to the discussion in Chapters VI, VII, and VIII dealing with the character, status, and problems of American corporations.

I. CORPORATE ASSETS AND LIABILITIES

The tables on pages 363-64 inclusive show the position of assets of all corporations by selected years from 1926 to 1937 as compiled from *Statistics of Income.* They cover ten major groups of industry and show the principal items in the balance sheets which, with the income statements, are submitted to the U. S. Bureau of Internal Revenue for tax purposes.

The data for steam railroads and all other public utilities were obtained directly from the U. S. Bureau of Internal Revenue. It should be noted that corporations in receivership do not file income returns. Thus the number of balance sheets received will also vary from year to year, and of course result in fluctuations in the total assets shown for any one industrial group. In the case of steam railroads, receiverships account in a large degree for the changes in total assets. The data for the other groups are from the U. S. Bureau of Internal Revenue, *Statistics of Income.*

The charts on pages 132 and 133 of Chapter VII classify total liabilities of all non-financial corporations, manufacturing, transportation and all other public utilities, mining and quarrying, trade, and service corporations. The data underlying these charts are given on pages 370-73 inclusive.

Assets of Corporations for Selected Types of Industry, in Specified Years
(In millions of dollars)

Type of Industry	1926	1929[a]	1932	1935	1936	1937
STEAM RAILROADS						
Current assets	...	1,497	973	1,071	1,119	1,123
Cash	...	600	344	398	520	395
Notes and accounts receivable	...	493	322	407	314	327
Inventories	..	395	284	262	281	396
Investments, tax-exempt	...	9	23	4	4	5
Fixed assets	...	31,508	25,295	27,149	24,014	25,882
Investments other than tax-exempt	...	6,537	4,365	4,911	3,289	3,383
Plant and equipment	...	23,547	19,774	21,553	20,106	21,926
Other assets	..	1,424	1,156	685	619	573
Total assets	...	33,005	26,268	28,220	25,133	27,005
ALL OTHER PUBLIC UTITITIES						
Current assets	..	5,055	3,749	2,826	2,793	2,632
Cash	..	1,093	955	835	979	786
Notes and accounts receivable	..	3,177	2,217	1,462	1,287	1,265
Inventories	...	578	429	355	370	422
Investments, tax-exempt	..	207	148	174	157	159
Fixed assets	...	42,418	42,131	35,432	34,789	35,011
Investments other than tax-exempt	...	7,752	8,420	4,962	4,927	5,279
Plant and equipment	..	31,513	30,284	28,028	27,567	27,703
Other assets	..	3,153	3,427	2,442	2,295	2,029
Total assets	. .	47,473	45,880	38,258	37,582	37,643
CONSTRUCTION						
Current assets	1,203	1,484	863	737	879	900
Cash	213	208	132	123	125	140
Notes and accounts receivable	669	876	479	426	545	543
Inventories	273	305	138	125	159	170
Investments, tax-exempt	48	95	114	63	50	47
Fixed assets	1,155	1,611	1,278	876	810	802
Investments other than tax-exempt	[b]	381	403	225	194	193
Plant and equipment	654	857	674	485	493	494
Other assets	501	373	201	166	123	115
Total assets	2,358	3,095	2,141	1,613	1,689	1,702
MINING						
Current assets	2,105	2,217	1,283	1,373	1,434	1,510
Cash	409	421	236	295	315	333
Notes and accounts receivable	763	837	515	597	678	677
Inventories	636	694	392	317	278	340
Investments, tax-exempt	297	265	140	164	163	160
Fixed assets	10,067	9,615	8,203	8,146	7,765	7,637
Investments other than tax-exempt	. [b]	1,346	1,226	1,676	1,508	1,578
Plant and equipment	7,968	7,264	6,415	5,915	5,851	5,748
Other assets	2,099	1,005	562	555	406	311
Total assets	12,172	11,832	9,486	9,519	9,199	9,147
TRADE						
Current assets	12,722	13,713	8,767	10,944	11,850	12,030
Cash	1,164	1,283	1,041	1,271	1,314	1,287
Notes and accounts receivable	5,632	6,305	4,006	4,832	5,224	5,180
Inventories	5,569	5,862	3,368	4,568	5,054	5,328
Investments, tax-exempt	357	263	352	274	258	235
Fixed assets	6,418	8,129	6,992	6,541	6,374	6,823
Investments other than tax-exempt	.. [b]	1,501	1,717	1,894	1,902	2,327
Plant and equipment	4,079	4,967	4,159	3,662	3,615	3,671
Other assets	2,339	1,661	1,116	985	857	825
Total assets	19,140	21,842	15,759	17,485	18,224	18,853

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[a] The data for steam railroads and for all other public utilities are for the year 1930 since comparable data for these two groups are not available for earlier years.

[b] Included with "other assets" in 1926.

ASSETS OF CORPORATIONS FOR SELECTED TYPES OF INDUSTRY, IN SPECIFIED YEARS—*Continued*

(In millions of dollars)

Type of Industry	1926	1929[a]	1932	1935	1936	1937
SERVICE						
Current assets	910	1,509	1,069	1,011	1,186	1,147
Cash	300	440	231	285	365	356
Notes and accounts receivable	384	833	637	526	602	558
Inventories	184	191	145	157	167	175
Investments, tax-exempt	42	45	56	43	52	58
Fixed assets	3,963	6,311	7,410	7,416	9,667	9,689
Investments other than tax-exempt	...[b]	1,831	1,171	783	1,025	912
Plant and equipment	2,783	3,813	5,611	6,033	8,084	8,271
Other assets	1,180	667	628	600	558	506
Total assets	4,873	7,820	8,479	8,427	10,853	10,836
CHEMICAL						
Current assets	3,683	4,009	3,428	3,593	3,402	3,604
Cash	492	560	592	541	605	545
Notes and accounts receivable	1,063	1,254	1,253	1,584	1,180	1,134
Investories	1,846	1,847	1,347	1,283	1,462	1,703
Investments, tax-exempt	282	348	236	185	155	222
Fixed assets	8,575	10,022	10,097	7,527	7,662	8,151
Investments other than tax-exempt	...[b]	1,884	3,459	2,587	2,374	2,432
Plant and equipment	5,372	6,072	5,713	4,444	4,774	5,241
Other assets	3,203	2,066	925	496	514	478
Total assets	12,258	14,031	13,525	11,120	11,064	11,755
FOOD, TOBACCO, AND BEVERAGES						
Current assets	3,326	3,908	2,985	3,371	3,664	3,805
Cash	453	529	623	570	526	550
Notes and accounts receivable	997	1,239	904	1,038	1,064	1,091
Inventories	1,709	1,943	1,185	1,577	1,888	2,007
Investments, tax-exempt	167	197	273	186	186	157
Fixed assets	5,557	5,891	4,938	4,309	4,401	4,472
Investments other than tax-exempt	...[b]	1,047	1,051	1,029	1,096	1,103
Plant and equipment	3,322	3,713	3,142	2,726	2,770	2,878
Other assets	2,235	1,131	745	554	535	491
Total assets	8,883	9,799	7,923	7,680	8,065	8,277
METAL PRODUCTS						
Current assets	9,276	9,934	6,414	7,056	7,862	8,228
Cash	1,478	1,565	1,220	1,311	1,369	1,256
Notes and accounts receivable	2,945	3,244	1,938	2,219	2,457	2,320
Inventories	4,051	4,198	2,447	2,967	3,516	4,256
Investments, tax-exempt	802	927	809	559	520	396
Fixed assets	11,946	13,145	12,852	10,347	10,500	10,568
Investments other than tax-exempt	..[b]	2,387	2,700	2,697	2,711	2,649
Plant and equipment	9,155	9,339	8,808	6,679	6,901	7,118
Other assets	2,791	1,419	1,344	971	888	801
Total assets	21,222	23,079	19,266	17,403	18,362	18,796
TEXTILES						
Current assets	3,350	3,525	1,853	2,242	2,463	2,303
Cash	375	378	307	302	304	277
Notes and accounts receivable	1,056	1,209	545	686	789	652
Inventories	1,762	1,799	780	1,122	1,236	1,263
Investments, tax-exempt	157	139	221	130	134	111
Fixed assets	2,910	3,098	2,580	2,311	2,166	2,152
Investments other than tax-exempt	..[b]	303	342	323	313	324
Plant and equipment	2,268	2,440	2,007	1,807	1,682	1,676
Other assets	642	355	240	181	171	152
Total assets	6,260	6,623	4,442	4,553	4,629	4,455

LIABILITIES OF CORPORATIONS FOR SELECTED TYPES OF INDUSTRY, FOR SPECIFIED YEARS

(In millions of dollars)

Type of Industry	1926	1929[a]	1932	1935	1936	1937
STEAM RAILROADS						
Unfunded debt	...	775	857	1,105	1,329	873
Funded debt	...	14,127	11,940	12,541	11,273	12,509
Other liabilities	...	2,799	1,875	1,950	1,886	1,594
Capital stock preferred	...	768	788	809	933	1,190
Capital stock common	...	9,385	7,229	7,979	6,730	7,048
Surplus	...	5,151	3,679	3,836	2,982	3,791
Total liabilities	...	**33,005**	**26,268**	**28,220**	**25,133**	**27,005**
ALL OTHER PUBLIC UTILITIES						
Unfunded debt	...	3,370	2,525	2,085	1,658	949
Funded debt	...	14,612	15,066	13,850	13,346	14,398
Other liabilities	...	4,019	4,057	2,585	3,175	1,733
Capital stock preferred	...	4,630	5,401	3,061	2,935	2,876
Capital stock common	...	13,562	14,474	14,270	14,188	14,306
Surplus	...	7,280	4,357	2,407	2,280	3,381
Total liabilities	...	**47,473**	**45,880**	**38,258**	**37,582**	**37,643**
CONSTRUCTION						
Unfunded debt	645	846	449	372	436	277
Funded debt	233	351	274	140	135	290
Other liabilities	524	504	295	275	322	244
Capital stock preferred	85	152	140	92	75	86
Capital stock common	554	732	651	576	533	518
Surplus	317	510	332	158	188	287
Total liabilities	**2,358**	**3,095**	**2,141**	**1,613**	**1,689**	**1,702**
MINING						
Unfunded debt	902	975	768	1,172	1,040	618
Funded debt	1,008	1,037	957	1,047	1,046	1,511
Other liabilities	1,910	1,000	773	744	669	394
Capital stock preferred	538	537	507	359	349	332
Capital stock common	6,176	5,716	4,953	4,447	4,242	4,126
Surplus	1,638	2,567	1,528	1,750	1,853	2,165
Total liabilities	**12,172**	**11,832**	**9,486**	**9,519**	**9,199**	**9,146**
TRADE						
Unfunded debt	4,997	5,730	3,443	5,030	5,381	3,710
Funded debt	584	1,252	1,204	1,029	998	2,952
Other liabilities	1,501	1,339	938	1,141	1,408	941
Capital stock preferred	1,722	1,851	1,618	1,270	1,271	1,314
Capital stock common	6,834	7,466	6,620	6,455	6,378	6,588
Surplus	3,502	4,204	1,936	2,560	2,788	3,348
Total liabilities	**19,140**	**21,842**	**15,759**	**17,485**	**18,224**	**18,853**

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[a] The data for steam railroads and for all other public utilities are for the year 1930 since comparable data for these two groups are not available for earlier years.

LIABILITIES OF CORPORATIONS FOR SELECTED TYPES OF INDUSTRY, FOR SPECIFIED YEARS—*Continued*
(In millions of dollars)

Type of Industry	1926	1929[a]	1932	1935	1936	1937
SERVICE						
Unfunded debt	821	954	983	1,231	1,408	775
Funded debt	842	1,563	3,008	3,561	5,002	5,737
Other liabilities	651	802	698	920	1,083	693
Capital stock preferred	447	616	615	537	582	555
Capital stock common	1,516	1,903	2,463	2,196	2,603	2,546
Surplus	596	1,982	712	−18	175	529
Total liabilities	**4,873**	**7,820**	**8,479**	**8,427**	**10,853**	**10,835**
CHEMICAL						
Unfunded debt	880	1,012	1,030	1,454	1,241	816
Funded debt	800	1,161	1,162	974	839	1,503
Other liabilities	1,488	981	783	800	844	411
Capital stock preferred	1,132	630	861	646	704	778
Capital stock common	5,191	6,570	6,483	4,993	4,964	5,009
Surplus	2,767	3,677	3,206	2,253	2,472	3,239
Total liabilities	**12,258**	**14,031**	**13,525**	**11,120**	**11,064**	**11,756**
FOOD, TOBACCO, & BEVERAGES						
Unfunded debt	1,092	1,261	799	1,060	1,083	674
Funded debt	721	977	825	707	730	1,350
Other liabilities	1,012	565	426	495	623	341
Capital stock preferred	1,274	1,378	1,094	911	886	937
Capital stock common	3,194	3,515	3,176	2,760	2,862	2,862
Surplus	1,590	2,103	1,603	1,747	1,881	2,125
Total liabilities	**8,883**	**9,799**	**7,923**	**7,680**	**8,065**	**8,289**
METAL PRODUCTS						
Unfunded debt	2,019	1,853	1,372	2,051	2,463	1,816
Funded debt	1,578	1,543	1,549	1,418	1,511	2,242
Other liabilities	1,971	1,560	2,025	1,379	1,473	767
Capital stock preferred	2,476	2,387	2,256	2,024	1,958	1,957
Capital stock common	7,463	7,799	7,256	6,281	6,191	6,303
Surplus	5,715	7,937	4,808	4,250	4,766	5,710
Total liabilities	**21,222**	**23,079**	**19,266**	**17,403**	**18,362**	**18,795**
TEXTILES						
Unfunded debt	1,078	1,153	533	699	796	390
Funded debt	194	261	210	215	190	553
Other liabilities	591	350	237	333	360	164
Capital stock preferred	798	858	704	569	544	535
Capital stock common	2,381	2,435	2,036	1,790	1,737	1,730
Surplus	1,218	1,566	722	947	1,002	1,081
Total liabilities	**6,260**	**6,623**	**4,442**	**4,553**	**4,629**	**4,453**

Changes in Assets of All Non-Financial Corporations, by Major Industrial Groups, 1926–37[a]

(In millions of dollars)

Type of Industry	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
Agriculture and related industries	2,050	2,177	2,054	2,140	2,031	2,136	2,143	1,913	2,252	2,107	2,064	1,987
Mining and quarrying	12,172	11,565	10,799	11,832	11,395	10,050	9,485	9,007	10,228	9,519	9,209	9,146
Food and kindred products	8,884	9,089	8,924	9,800	9,203	8,360	7,924	8,083	7,707	7,680	8,065	8,288
Textile products	6,260	6,664	6,747	6,623	5,772	5,001	4,441	4,598	4,414	4,553	4,629	4,455
Leather and its manufactures	1,227	1,229	1,219	1,198	1,081	899	802	809	739	793	821	751
Rubber products	1,376	1,561	1,433	1,422	1,368	1,298	1,214	1,183	1,148	953	978	1,006
Forest products	4,023	3,794	3,749	3,672	3,444	2,893	2,704	2,549	2,369	2,220	2,242	2,179
Paper, pulp, and products	2,097	2,182	2,116	2,573	2,525	2,408	2,344	2,295	2,211	2,197	2,181	2,283
Printing, publishing	2,384	2,562	2,655	2,838	3,025	3,034	2,934	2,849	2,331	2,324	2,385	2,603
Chemicals and allied products	12,258	12,041	13,078	14,031	14,449	14,800	13,525	13,196	10,938	11,120	11,064	11,755
Stone, clay, glass	2,237	2,259	2,421	2,393	2,459	2,186	1,972	1,866	1,857	1,879	1,930	1,983
Metal and its products	21,223	21,766	22,233	23,079	23,406	20,804	19,266	18,558	17,147	17,403	18,362	18,796
Other manufacturing	2,759	2,436	2,484	2,654	2,513	2,119	1,896	1,767	1,561	1,560	1,607	1,625
Construction	2,358	2,739	2,690	3,095	3,012	2,475	2,141	1,833	1,700	1,613	1,689	1,702
Transportation and and other public utilities	57,245	66,559	71,380	77,792	80,479	72,337	72,149	69,049	68,461	66,478	62,715	64,648
Trade	19,140	20,083	21,481	21,842	20,115	17,900	15,759	15,654	17,434	17,486	18,224	18,853
Service	4,873	5,618	5,857	7,820	7,518	6,555	8,480	7,428	7,771	8,427	10,853	10,835
Miscellaneous	160	302	205	252	171	199	150	94	99	91	64	61
Total	162,726	174,626	181,525	195,056	193,966	175,454	169,329	162,731	160,367	158,403	159,082	162,956

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[a] Data are from U. S. Bureau of Internal Revenue, *Statistics of Income.*

II. DISPOSITION OF DISTRIBUTABLE INCOME

On page 116 data were presented showing the disposition of corporate gross income for all non-financial types of corporate industry. These data, from the *Statistics of Income*, are taken from the table showing the income returns compiled by industrial groups. Since no "allowances for bad debts" are given in 1926, we have used for that year the 1927 "allowances." In order to obtain a true picture of the income derived from productive operations, adjustments have been made for realized capital gains and losses: for the years 1926 through 1929 "compiled net profit" or "deficit" has been adjusted for "net capital gains"; for the remaining years "gross revenue" and "operating expenditures" have been decreased by "capital gains" and "capital losses" respectively.

Disposition of "Income" for Non-Financial Corporations, Reporting No Net Income, 1930–36[a]
(In millions of dollars)

Items	1930	1931	1932	1933	1934	1935	1936
Gross revenue...	40,701	37,741	42,794	30,988	31,788	30,521	23,407
Less—							
Cash operating expenditures	41,799	38,660	44,229	31,197	31,929	30,566	23,627
Income..........	−1,098	−919	−1,435	−209	−141	−45	−220
Less—							
Cash dividends	799	1,516	1,039	393	427	548	107
Allowances for bad debts	339	443	553	407	305	230	181
Balance..........	−2,236	−2,878	−3,027	−1,009	−873	−823	−508
Less—							
Depreciation and depletion allowances......	1,430	2,190	2,361	1,825	1,504	1,344	853
Additions to assets.	−3,666	−5,068	−5,388	−2,834	−2,377	−2,167	−1,361

[a] Minus sign indicates a deficit.

The table on page 117 showing the asset dissipations of companies reporting no net income is compiled from the same data. These dissipations may, perhaps, be seen more easily in the accompanying table. The same adjustments as above have been made for capital gains and losses. When expenditures are larger than gross revenue, working capital has been decreased to meet the resulting operating deficit. If cash dividends and the allowances for bad debts are greater than "income," the "balance" likewise represents a decrease of working capital. When the allowances for depreciation and depletion are larger than the income available for these purposes, the excess represents the amount of fixed assets used up and not replaced in the form of cash or some other asset. The total of these several items represents the decrease in assets resulting from the corporate operations for the given year.

The chart on page 118 shows the dissipation of assets which has occurred during the years 1930-37 in the various groups of industry. The data underlying this chart are given in the accompanying table.

On page 122 data were presented which compared corporate income with interest outgo and earnings with share capital. The data covered all the major groups of industry and also railroads and public utilities. Basic data for the railroads are from *Statistics of Railways in the United States,* Interstate Commerce Commission. For utilities, the source is Standard Statistics, *Trade and Information Bulletin;* and for the other types of industry, data are taken from *Statistics of Income,* U. S. Bureau of Internal Revenue. All income and earnings data from *Statistics of Income* are adjusted for capital gains and capital losses.

DISSIPATION OF ASSETS, BY INDUSTRIAL GROUPS, 1930–37[a]
(In millions of dollars)

Industry	Amount	Industry	Amount
Agriculture	419.6	Chemicals	1,645.5
Mining and quarrying	1,981.2	Stone, clay, and glass	304.3
Food and products	191.0	Metal and products	2,633.7
Textiles	1,142.7	Other manufacturing	396.8
Leather	187.4	Construction	399.3
Rubber	168.1	Steam railroads	2,164.0
Forest products	838.1	All other public utilities	3,386.0
Paper and pulp	130.6	Trade	2,720.9
Printing	196.5	Service	1,618.5

[a] Data are from *Statistics of Income* for the various years.

Classification of Total Liabilities
(In thousands

I. ALL NON-FINANCIAL

Asset Classes	Total Liabilities		Notes and Accounts Payable		Bonded Debt and Mortgages	
	Amount	*Per Cent*	Amount	*Per Cent*	Amount	*Per Cent*
Total	**159,070,573**	**100**	**18,766,400**	**11.8**	**36,315,896**	**22.8**
Under 50	3,386,298	*100*	1,353,230	*40.0*	262,135	*7.7*
50– 100	3,194,040	*100*	948,178	*29.7*	321,716	*10.1*
100– 250	6,465,652	*100*	1,612,659	*24.9*	815,011	*12.6*
250– 500	6,503,853	*100*	1,362,446	*21.0*	1,036,013	*15.9*
500– 1,000	7,712,841	*100*	1,458,025	*18.9*	1,266,157	*16.4*
1,000– 5,000	21,027,149	*100*	3,178,380	*15.1*	3,551,008	*16.9*
5,000– 10,000	10,318,974	*100*	1,293,785	*12.5*	2,040,347	*19.8*
10,000– 50,000	25,795,425	*100*	2,668,440	*10.3*	5,344,893	*20.7*
50,000–100,000	14,054,253	*100*	1,165,247	*8.3*	4,214,783	*30.0*
100,000 and over	60,612,088	*100*	3,726,010	*6.2*	17,463,833	*28.8*
II. TRANSPORTATION AND						
Total	**62,715,048**	**100**	**2,978,206**	**4.8**	**24,618,564**	**39.2**
Under 50	192,504	*100*	76,605	*39.8*	27,636	*14.3*
50– 100	160,207	*100*	43,289	*27.0*	19,244	*12.0*
100– 250	358,437	*100*	83,115	*23.2*	58,126	*16.2*
250– 500	393,981	*100*	65,986	*16.8*	88,967	*22.5*
500– 1,000	641,175	*100*	109,680	*17.1*	154,190	*24.1*
1,000– 5,000	2,704,798	*100*	348,494	*12.9*	857,582	*31.7*
5,000– 10,000	2,292,160	*100*	192,431	*8.4*	796,838	*34.8*
10,000– 50,000	8,833,011	*100*	486,270	*5.5*	3,334,103	*37.8*
50,000–100,000	7,436,890	*100*	263,316	*3.5*	3,426,211	*46.1*
100,000 and over	39,701,885	*100*	1,318,020	*3.3*	15,855,667	*39.9*
III. MANUFAC-						
Total	**54,261,887**	**100**	**7,095,754**	**13.1**	**4,256,387**	**7.8**
Under 50	814,545	*100*	305,971	*37.6*	52,313	*6.4*
50– 100	891,050	*100*	252,107	*28.3*	59,764	*6.7*
100– 250	2,096,451	*100*	504,973	*24.1*	133,982	*6.4*
250– 500	2,376,176	*100*	476,215	*20.0*	162,390	*6.8*
500– 1,000	3,028,642	*100*	542,718	*17.9*	206,658	*6.8*
1,000– 5,000	8,751,847	*100*	1,201,304	*13.7*	551,383	*6.3*
5,000– 10,000	4,354,602	*100*	481,734	*11.1*	385,389	*8.9*
10,000– 50,000	10,509,318	*100*	1,053,646	*10.0*	824,933	*7.9*
50,000–100,000	4,097,420	*100*	376,043	*9.2*	491,482	*12.0*
100,000 and over	17,341,836	*100*	1,901,043	*11.0*	1,388,093	*8.0*

[a] Data are from *Statistics of Income for 1936*, Pt. II.

OF CORPORATIONS, 1936[a]
of dollars)

CORPORATIONS

Other Liabilities		Preferred Stock		Common Stock	Surplus	Common Stock Plus Surplus (Equity)	
Amount	*Per Cent*	Amount	*Per Cent*	Amount	Amount	Amount	*Per Cent*
13,172,526	**8.3**	**11,758,331**	**7.4**	**55,857,983**	**23,199,437**	**79,057,420**	**49.7**
372,224	*11.0*	135,148	*4.0*	2,183,709	−920,148	1,263,561	*37.3*
278,785	*8.7*	139,295	*4.4*	1,584,828	− 78,763	1,506,065	*47.1*
540,039	*8.4*	379,805	*5.9*	2,838,155	279,982	3,118,137	*48.2*
472,704	*7.3*	459,456	*7.0*	2,542,693	630,541	3,173,234	*48.8*
610,557	*7.9*	618,028	*8.0*	2,841,878	918,196	3,760,074	*48.8*
1,923,377	*9.1*	1,805,073	*8.6*	7,085,941	3,483,370	10,569,311	*50.3*
944,715	*9.2*	848,277	*8.2*	3,269,477	1,922,374	5,191,851	*50.3*
2,286,988	*8.9*	2,334,849	*9.1*	8,352,314	4,807,942	13,160,256	*51.0*
1,291,215	*9.2*	1,157,203	*8.2*	4,151,884	2,073,920	6,225,804	*44.3*
4,451,922	*7.3*	3,881,197	*6.4*	21,007,104	10,082,023	31,089,127	*51.3*

OTHER PUBLIC UTILITIES

Other Liabilities		Preferred Stock		Common Stock	Surplus	Common Stock Plus Surplus (Equity)	
Amount	*Per Cent*	Amount	*Per Cent*	Amount	Amount	Amount	*Per Cent*
5,060,665	**8.0**	**3,867,604**	**6.2**	**20,918,404**	**5,262,605**	**26,181,009**	**41.8**
26,721	*13.9*	7,296	*3.8*	139,611	−85,365	54,246	*28.2*
19,599	*12.2*	5,740	*3.6*	80,147	− 7,812	72,335	*45.2*
34,700	*9.7*	23,726	*6.6*	182,620	−23,850	158,770	*44.3*
43,645	*11.1*	24,035	*6.1*	164,709	6,639	171,348	*43.5*
73,921	*11.5*	55,769	*8.7*	291,254	−43,639	247,615	*38.6*
283,815	*10.5*	142,668	*5.3*	971,689	100,550	1,072,239	*39.6*
228,451	*10.0*	163,954	*7.1*	784,960	125,526	910,486	*39.7*
762,447	*8.6*	832,089	*9.4*	2,857,347	560,755	3,418,102	*38.7*
698,369	*9.4*	584,771	*7.9*	2,084,549	379,674	2,464,223	*33.1*
2,888,997	*7.3*	2,027,556	*5.1*	13,361,518	4,250,127	17,611,645	*44.4*

TURING

Other Liabilities		Preferred Stock		Common Stock	Surplus	Common Stock Plus Surplus (Equity)	
Amount	*Per Cent*	Amount	*Per Cent*	Amount	Amount	Amount	*Per Cent*
4,442,868	**8.2**	**5,529,587**	**10.2**	**20,092,159**	**12,845,132**	**32,937,291**	**60.7**
93,618	*11.5*	44,464	*5.5*	555,639	−237,460	318,179	*39.0*
74,149	*8.3*	51,942	*5.8*	476,231	− 23,143	453,088	*50.9*
156,981	*7.5*	159,504	*7.6*	990,820	150,191	1,141,011	*54.4*
161,369	*6.8*	222,354	*9.4*	998,659	355,189	1,353,848	*57.0*
206,700	*6.8*	299,816	*9.9*	1,182,881	589,869	1,772,750	*58.6*
684,488	*7.8*	990,452	*11.3*	3,105,809	2,218,411	5,324,220	*60.9*
379,875	*8.7*	467,900	*10.7*	1,443,627	1,196,077	2,639,704	*60.6*
992,705	*9.4*	1,103,841	*10.5*	3,660,250	2,873,943	6,534,193	*62.2*
367,924	*9.0*	407,143	*9.9*	1,432,756	1,022,072	2,454,828	*59.9*
1,325,059	*7.6*	1,782,171	*10.3*	6,245,487	4,699,983	10,945,470	*63.1*

CLASSIFICATION OF TOTAL LIABILITIES
(In thousands

IV. MINING AND

Asset Classes	Total Liabilities		Notes and Accounts Payable		Bonded Debt and Mortgages	
	Amount	*Per Cent*	Amount	*Per Cent*	Amount	*Per Cent*
Total	**9,199,402**	**100**	**1,041,280**	**11.3**	**1,045,769**	**11.4**
Under 50	94,553	*100*	41,016	*43.4*	8,911	*9.4*
50– 100	123,991	*100*	33,909	*27.4*	7,677	*6.2*
100– 250	318,323	*100*	76,452	*24.0*	26,395	*8.3*
250– 500	392,366	*100*	79,331	*20.2*	33,819	*8.6*
500– 1,000	532,921	*100*	99,066	*18.6*	55,240	*10.4*
1,000– 5,000	1,807,505	*100*	221,152	*12.2*	185,747	*10.3*
5,000–10,000	979,357	*100*	101,635	*10.4*	150,832	*15.4*
10,000–50,000	2,236,241	*100*	191,991	*8.6*	277,220	*12.4*
50,000 and over	2,714,145	*100*	196,728	*7.3*	299,928	*11.4*

V. TRADE

Asset Classes	Amount	*Per Cent*	Amount	*Per Cent*	Amount	*Per Cent*
Total	**18,223,769**	**100**	**5,381,432**	**29.5**	**998,129**	**5.5**
Under 50	1,603,010	*100*	646,446	*40.3*	74,369	*4.6*
50– 100	1,338,165	*100*	439,362	*32.8*	69,214	*5.2*
100– 250	2,205,579	*100*	662,979	*30.1*	122,375	*5.6*
250– 500	1,728,247	*100*	486,922	*28.2*	100,018	*5.8*
500– 1,000	1,639,968	*100*	461,164	*28.1*	92,301	*5.6*
1,000– 5,000	3,325,445	*100*	926,695	*27.9*	215,538	*6.5*
5,000–10,000	1,216,343	*100*	361,474	*29.7*	65,595	*5.4*
10,000–50,000	2,564,954	*100*	681,210	*26.5*	191,682	*7.5*
50,000 and over	2,602,058	*100*	715,179	*27.5*	67,038	*2.6*

Asset Classes	Amount	*Per Cent*	Amount	*Per Cent*	Amount	*Per Cent*
Total	**10,853,394**	**100**	**1,408,000**	**13.0**	**5,002,065**	**46.0**
Under 50	443,522	*100*	169,854	*38.3*	73,594	*16.6*
50– 100	445,364	*100*	97,062	*21.8*	138,739	*31.2*
100– 250	1,024,818	*100*	154,001	*15.0*	421,422	*41.1*
250– 500	1,186,673	*100*	142,336	*12.0*	606,698	*51.2*
500– 1,000	1,398,530	*100*	140,234	*10.0*	707,377	*50.6*
1,000– 5,000	3,441,194	*100*	308,885	*9.0*	1,627,769	*47.3*
5,000–10,000	1,083,310	*100*	89,262	*8.2*	609,203	*56.2*
10,000 and over	1,829,983	*100*	306,366	*16.7*	817,263	*44.6*

of Corporations—*Continued*
of dollars)

QUARRYING

Other Liabilities		Preferred Stock		Common Stock	Surplus	Common Stock Plus Surplus (Equity)	
Amount	*Per Cent*	Amount	*Per Cent*	Amount	Amount	Amount	*Per Cent*
668,848	**7.3**	**348,707**	**3.8**	**4,241,776**	**1,853,022**	**6,094,798**	**66.2**
16,123	*17.1*	6,453	*6.8*	141,935	−119,885	22,050	*23.3*
14,987	*12.1*	8,597	*6.9*	108,404	− 49,583	58,821	*47.4*
41,773	*13.1*	17,468	*5.5*	230,931	− 74,696	156,235	*49.1*
35,141	*9.0*	16,842	*4.3*	267,217	− 39,984	227,233	*57.9*
51,571	*9.7*	28,547	*5.4*	291,170	7,327	298,497	*55.9*
175,062	*9.7*	90,322	*5.0*	861,238	273,984	1,135,222	*62.8*
76,078	*7.8*	34,509	*3.5*	402,152	214,151	616,303	*62.9*
140,238	*6.3*	82,584	*3.7*	892,767	651,441	1,544,208	*69.0*
117,875	*4.3*	63,385	*2.3*	1,045,962	990,267	2,036,229	*75.0*

1,408,181	**7.7**	**1,271,048**	**7.0**	**6,376,614**	**2,788,365**	**9,164,979**	**50.3**
141,525	*8.8*	50,516	*3.2*	906,917	−216,763	690,154	*43.1*
98,724	*7.4*	48,763	*3.6*	621,538	60,564	682,102	*51.0*
155,542	*7.0*	113,576	*5.1*	913,737	237,370	1,151,107	*52.2*
105,527	*6.1*	119,970	*6.9*	647,987	267,823	915,810	*53.0*
112,647	*6.9*	140,459	*8.6*	568,854	264,543	833,397	*50.8*
285,873	*8.6*	316,769	*9.5*	972,155	608,415	1,580,570	*47.5*
91,446	*7.5*	118,182	*9.7*	296,716	282,930	579,646	*47.7*
240,713	*9.4*	222,560	*8.7*	657,719	571,070	1,228,789	*47.9*
176,184	*6.8*	140,252	*5.4*	790,991	712,414	1,503,405	*57.7*

ICE

1,082,699	**10.0**	**582,339**	**5.4**	**2,602,933**	**175,358**	**2,778,291**	**25.6**
63,755	*14.4*	14,363	*3.2*	253,809	−131,853	121,956	*27.5*
47,194	*10.6*	14,653	*3.3*	172,984	− 25,268	147,716	*33.1*
103,040	*10.1*	47,994	*4.7*	305,176	− 6,815	298,361	*29.1*
88,110	*7.4*	56,160	*4.7*	286,104	7,265	293,369	*24.7*
115,646	*8.3*	74,464	*5.3*	326,582	34,227	360,809	*25.8*
368,274	*10.7*	211,595	*6.1*	789,618	135,053	924,671	*26.9*
108,480	*10.0*	40,897	*3.8*	223,940	11,528	235,468	*21.8*
188,200	*10.3*	122,213	*6.7*	244,720	151,221	395,941	*21.7*

III. WORKING CAPITAL POSITION OF SELECTED INDUSTRIAL COMPANIES

The following material, which represents an extension through 1937 of the study of "Industrial Working Capital during Business Recession," by Dr. H. G. Guthmann of Northwestern University,[1] has been compiled by Mr. E. O. Jolley of Northwestern University for our purpose. For the early years covered in Dr. Guthmann's original study, the chief source was the "Individual Reports Section" of the *Standard Corporation Records*. When necessary, *Moody's Manual of Investments, Industrial Securities* volume, was also consulted. For the years 1933-37, the latter volume has been chiefly used; and, when necessary, the figures have been checked both with the "Individual Reports Section" of the *Standard Corporation Records* and *Poor's Industrial* volume. Since there is more uniformity in the *current* sections of industrial balance sheets than in the non-current items, relatively few problems of classification arose. The following classifications should, however, be noted:

"Cash" includes certificates of deposit as well as reported cash.

"Receivables" includes both notes and accounts receivable.

"Inventory" includes supplies as well as items reported as inventory.

"Accounts payable" includes accruals, tax reserves, etc., only when they were not separately reported.

"Notes payable" includes items reported as notes payable or bank loans payable, but does not include long-term debt about to mature.

A number of companies have been dropped from Dr. Guthmann's original study as follows:

Nash Motors Corporation was dropped from the Automobiles and Trucks group, and Kelvinator Corporation from Household Products group, because separate statements have not been available since the two companies merged in 1937.

Colorado Iron and Fuel Company was dropped from Steel and Iron group, and Paramount Pictures, Inc. from Theaters group, because these companies have been in receivership and comparable statements are not available for all the years studied.

Kelly-Springfield Tire Company was dropped from the Automobile Tires group in 1935 and subsequently because it was acquired by the B. F. Goodrich Company in 1935.

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[1] *Harvard Business Review*, Vol. XII (1934), pp. 472-77.

The working capital position of each group of companies for 1926 and 1937 is given on page 138. The summary for all companies is given on page 136. The 186 companies included are as follows:

1. Automobile parts
    1. Continental Motors Corporation
    2. Eaton Manufacturing Co.
    3. Electric Auto-Lite Co.
    4. Electric Storage Battery Co.
    5. Kelsey-Hayes Wheel Co.
    6. Motor Wheel Corp.
    7. Mullins Manufacturing Corp.
    8. Murray Corp. of America
    9. Stewart-Warner Corporation
    10. Timken Roller Bearing Company
    11. United American Bosch Corporation
2. Automobile tires[2]
    1. Firestone Tire & Rubber Company
    2. Goodrich (B. F.) Company
    3. Goodyear Tire & Rubber Company
    4. United States Rubber Company
3. Automobiles and trucks
    1. Chrysler Corporation
    2. General Motors Corporation
    3. Hudson Motor Car Co.
    4. Hupp Motor Car Corporation
    5. Mack Trucks, Inc.
    6. Packard Motor Car Company
    7. Reo Motor Car Company
    8. Studebaker Corporation
4. Building materials and real estate
    1. American Radiator & Standard Sanitary Corp.
    2. Barber Asphalt Corp. (formerly General Asphalt Company)
    3. Certain-teed Products Corporation
    4. Glidden Company
    5. Lone Star Cement Corp. (formerly International Cement Corp.)
    6. Johns-Manville Corp.
    7. National Lead Company
    8. United States Gypsum Company
    9. United States Realty & Improvement Company
5. Chemicals
    1. Air Reduction Co., Inc.
    2. Allied Chemical & Dye Corp.
    3. Atlas Powder Company
    4. Commercial Solvents Corp.
    5. du Pont (E.I.) de Nemours & Co.
    6. Eastman Kodak Co. of New Jersey
    7. Freeport Sulphur Co. (formerly Freeport Texas Co.)
    8. Mathieson Alkali Works (Inc.)
    9. Tennessee Corporation
    10. Texas Gulf Sulphur Company
    11. Union Carbide and Carbon Corporation
    12. U. S. Industrial Alcohol Company
6. Coal
    1. Island Creek Coal Company
    2. Philadelphia and Reading Coal and Iron Corp.
    3. Pittsburgh Coal Company
7. Containers
    1. American Can Company
    2. Continental Can Co., Inc.
    3. Owens-Illinois Glass Co.
8. Electrical equipment
    1. General Electric Company
    2. Westinghouse Electric & Manufacturing Co.
9. Food products — meats, baked goods, and dairy products[3]
    1. Armour and Company

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[2] The Kelly-Springfield Tire Co. was included through 1934, after which date it was acquired by the B. F. Goodrich Co.

[3] In 1926, General Ice Cream, and in 1926 and 1929, Kraft Phoenix were added to National Dairy Products Corp. for comparability with the later years after which they were acquired.

    2. Borden Company
    3. Continental Baking Corporation
    4. Cudahy Packing Co.
    5. General Baking Co.
    6. National Dairy Products Corp.
    7. Purity Bakeries Corp.
    8. Swift and Co.
    9. Wilson Co., Inc.
10. Food products—packaged foods
    1. American Chicle Co.
    2. Beech-Nut Packing Co.
    3. California Packing Corp.
    4. Canada Dry Ginger Ale, Inc.
    5. Coca-Cola Co.
    6. Corn Products Refining Co.
    7. General Foods Corp. (formerly Postum Co., Inc.)
    8. Hecker Products Corp. (formerly Gold Dust Corp.)
    9. Hershey Chocolate Corp.
    10. International Salt Co.
    11. Loose-Wiles Biscuit Co.
    12. National Biscuit Co.
    13. Penick & Ford, Ltd. Inc.
    14. Quaker Oats Co.
    15. Standard Brands Inc. (formerly Fleischmann Co.)
    16. United Fruit Co.
    17. Wrigley (Wm.) Jr., Co.
11. Household products[4]
    1. American Ice Co.
    2. Colgate-Palmolive-Peet Co.
    3. Congoleum-Nairn Inc.
    4. Procter & Gamble Co.
    5. Simmons Co.
12. Leather and shoes
    1. American Hide and Leather Co.
    2. Brown Shoe Company, Inc.
    3. Endicott Johnson Corp.
    4. International Shoe Co.
13. Machinery (agricultural)
    1. Case (J. I.) Co.
    2. Deere & Co.
    3. International Harvester Co.
14. Machinery (industrial)
    1. Allis-Chalmers Mfg. Co.
    2. Caterpillar Tractor Co.
    3. Chicago Pneumatic Tool Co.
    4. Worthington Pump and Machinery Corp.
15. Metals (copper)
    1. Anaconda Copper Mining Co.
    2. Cerro de Pasco Copper Corp.
    3. Granby Consolidated Mining, Smelting and Power Co., Ltd.
    4. Kennecott Copper Corp.
    5. Noranda Mines, Limited
    6. St. Joseph Lead Co.
16. Metals (miscellaneous)
    1. Aluminum Co. of America
    2. American Smelting & Refining Co.
    3. International Nickel Co. of Canada, Ltd.
    4. U. S. Smelting, Refining & Mining Co.
    5. Vanadium Corp. of America
17. Office and business equipment[5]
    1. Burroughs Adding Machine Co.
    2. International Business Machines Corp.
    3. National Cash Register Co.
    4. Remington Rand, Inc.
    5. Underwood Elliott Fisher Co.
18. Oil
    1. Atlantic Refining Co.
    2. Barnsdall Refining Corp.
    3. Consolidated Oil Corp. (N.Y.)
    4. Continental Oil Co. (Del.)
    5. Gulf Oil Corp.
    6. Houston Oil Co. of Texas
    7. Humbolt Oil & Refining Co.
    8. Mid-Continent Petroleum Corp.
    9. Ohio Oil Co.
    10. Phillips Petroleum Co.
    11. Pure Oil Co.
    12. Shell Union Oil Corp.
    13. Simms Petroleum Co.

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[4] In 1926, figures for Palmolive-Peet and Colgate Co. were combined.

[5] In 1926, figures for Remington Typewriter Co., Dalton Adding Machine Co., Rand-Kardex Bureau, Inc., Kalamazoo Loose-Leaf Binder Co., and Powers Accounting Machine Co. were combined for comparability with Remington Rand, Inc., in later years.

    14. Skelly Oil Co.
    15. Socony-Vacuum Oil Company, Inc.[6]
    16. Standard Oil Co. of California
    17. Standard Oil (Indiana)
    18. Standard Oil Co. (New Jersey)
    19. Texas Corp.
    20. Tide Water Associated Oil
    21. Union Oil of California

19. Railway equipment
    1. American Brake Shoe and Foundry Co.
    2. American Car and Foundry Co.
    3. American Locomotive Company
    4. American Steel Foundries
    5. Baldwin Locomotive Works
    6. General Railway Signal Co.
    7. Lima Locomotive Works, Inc.
    8. New York Air Brake Company
    9. Pressed Steel Car Company, Inc.
    10. Pullman Inc.
    11. Union Tank Car Company
    12. Westinghouse Air Brake Company
20. Retail trade
    1. Associated Dry Goods Corp.
    2. Best & Co., Inc.
    3. Kresge (S. S.) Co.
    4. Macy (R. H.) & Co., Inc.
    5. May Department Stores Co.
    6. Montgomery Ward & Co., Inc.
    7. Sears Roebuck and Co.
    8. Woolworth (F. W.) Co.
21. Retail trade—groceries
    1. American Stores Co.
    2. First National Stores Inc.
    3. Great Atlantic & Pacific Tea Co. of America
    4. Jewel Tea Co., Inc.
    5. Kroger Grocery & Baking Co., Inc.
    6. Safeway Stores, Inc.
22. Steel and iron
    1. American Rolling Mill Co.
    2. Bethlehem Steel Corp.
    3. Crucible Steel Co. of America
    4. Gulf States Steel Co.
    5. Inland Steel Co.
    6. McKeesport Tin Plate Corp.
    7. Otis Steel Co.
    8. Pittsburgh Steel Co.
    9. United States Pipe and Foundry Co.
    10. United States Steel Corp.
    11. Youngstown Sheet and Tube Co.
23. Sugar
    1. American Crystal Sugar Co. (formerly American Beet Sugar Co.)
    2. American Sugar Refining Co.
    3. Cuban-American Sugar Co.
    4. Great Western Sugar Co.
    5. South Porto Rico Sugar Co.
24. Textiles
    1. American Woolen Co.
    2. Cluett, Peabody & Co., Inc.
    3. Julius Kayser & Co.
    4. Manhattan Shirt Co.
25. Theaters
    1. Loew's Incorporated
    2. Twentieth Century-Fox Film Corp.
    3. Warner Bros. Pictures, Inc.
26. Tobacco
    1. American Tobacco Co.
    2. Consolidated Cigar Corp.
    3. General Cigar Co., Inc.
    4. Liggett & Meyers Tobacco Co.
    5. Lorillard (P.) Co.
    6. Reynolds (R. J.) Tobacco Co.

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[6] In 1926, 1929, and 1930, Standard Oil of N.Y. and Vacuum Oil Co. were combined to compare with Socony Vacuum of later years.

Working Capital of Industrial Companies, 1926
(In millions of dollars)

Industry	Current Assets						Current Liabilities				Net Working Capital	*Current Ratio*
	Cash	Marketable Securities	Receivables (Net)	Inventory (Net)	Miscellaneous	Total	Accounts Payable	Notes Payable	Miscellaneous	Total		
Automobile parts	16.4	25.5	21.9	48.9	1.0	113.7	9.7	2.9	5.4	18.0	95.7	*6.3*
Automobile tires	46.5	15.7	96.4	223.1	0.8	382.5	41.3	21.2	6.1	68.6	313.9	*5.6*
Automobiles and trucks	163.0	49.1	105.1	253.6	3.1	573.9	74.0	1.8	120.8	196.6	377.3	*2.9*
Building materials and real estate	31.2	15.8	67.9	73.2	0.1	188.2	22.6	0.9	11.2	34.7	153.5	*5.4*
Chemicals	71.6	133.6	76.2	140.2	1.6	423.2	33.5	0.1	31.1	64.7	358.5	*6.5*
Coal	9.7	6.5	20.0	19.8	...	56.0	8.1	4.0	4.3	16.4	39.6	*3.4*
Containers	21.2	8.3	17.3	41.9	0.6	89.3	8.4	...	7.5	15.9	73.4	*5.6*
Electrical equipment	92.1	72.9	82.6	137.8	25.2	410.6	20.8	...	58.8	79.6	331.0	*5.2*
Food products (meats, etc.)	61.1	22.5	186.5	307.9	0.7	578.7	69.1	57.7	9.8	136.6	442.1	*4.2*
Food products (packaged)	65.0	88.8	54.1	106.3	7.9	322.1	18.9	16.6	34.4	69.9	252.2	*4.6*
Household products	12.9	10.5	28.6	69.3	0.3	121.6	17.3	1.7	...	19.0	102.6	*6.4*
Leather and shoes	9.4	6.0	42.1	54.0	0.8	112.3	5.4	9.3	7.0	21.7	90.6	*5.2*
Machinery (agricultural)	33.9	5.2	111.7	113.9	...	264.7	34.8	...	7.0	41.8	222.9	*6.3*
Machinery (industrial)	5.3	11.0	17.3	34.8	0.3	68.7	3.3	2.0	5.5	10.8	57.9	*6.4*
Metals (copper)	39.4	34.8	27.5	108.3	...	210.0	20.7	1.1	23.8	45.6	164.4	*4.6*
Metals (miscellaneous)	43.6	40.0	40.2	105.1	0.1	229.0	21.6	5.1	13.2	39.9	189.1	*5.7*
Office and business equipment	14.1	7.1	56.2	45.2	1.1	123.7	5.4	2.6	13.6	21.6	102.1	*5.7*
Oil	226.2	265.9	624.5	1,170.7	46.6	2,333.9	439.6	57.1	88.4	585.1	1,748.8	*4.0*
Railway equipment	97.7	91.5	81.0	74.2	10.9	355.3	46.4	...	24.3	70.7	284.6	*5.0*
Retail trade	66.9	15.9	33.3	146.8	1.0	263.9	32.9	2.2	19.4	54.5	209.4	*4.8*
Retail trade (groceries)	32.1	9.7	3.1	87.2	2.3	134.4	22.5	2.2	9.9	34.6	99.8	*3.9*
Steel and iron	174.7	138.8	182.0	464.5	1.9	961.9	103.3	2.4	89.1	194.8	767.1	*4.9*
Sugar	30.8	1.9	12.6	68.9	8.5	122.7	8.1	15.2	4.1	27.4	95.3	*4.5*
Textiles	10.0	0.3	31.6	65.1	0.4	107.4	6.8	7.1	5.8	19.7	87.7	*5.5*
Theaters	7.0	...	2.4	35.6	0.9	45.9	5.5	5.7	3.4	14.6	31.3	*3.1*
Tobacco	60.5	...	50.1	323.3	0.3	434.2	19.9	0.8	15.6	36.3	397.9	*12.0*
Total	1,442.3	1,077.3	2,072.2	4,319.6	116.4	9,027.8	1,099.9	219.7	619.5	1,939.1	7,088.7	*4.7*

Working Capital of Industrial Companies, 1929
(In millions of dollars)

Industry	Current Assets						Current Liabilities				Net Working Capital	*Current Ratio*
	Cash	Marketable Securities	Receivables (Net)	Inventory (Net)	Miscellaneous	Total	Accounts Payable	Notes Payable	Miscellaneous	Total		
Automobile parts	18.6	29.5	27.0	54.8	0.6	130.5	10.7	1.9	11.2	23.8	106.7	*5.5*
Automobile tires	97.4	3.0	119.2	217.9	1.7	439.2	39.6	26.2	27.4	93.2	346.0	*4.7*
Automobiles and trucks	164.3	63.9	104.0	318.6	3.7	654.5	75.5	3.4	101.6	180.5	474.0	*3.6*
Building materials and real estate	53.8	13.1	86.6	93.4	0.2	247.1	19.4	6.8	14.8	41.0	206.1	*6.0*
Chemicals	103.5	199.0	99.3	175.5	5.8	583.1	40.3	3.2	36.0	79.5	503.6	*7.3*
Coal	11.9	7.8	20.8	18.2	0.1	58.8	8.4	1.3	3.5	13.2	45.6	*4.5*
Containers	36.2	6.6	24.4	47.4	0.9	115.5	11.3	. . .	8.9	20.2	95.3	*5.7*
Electrical equipment	86.8	66.6	98.2	143.5	21.1	416.2	33.1	. .	63.3	96.4	319.8	*4.3*
Food products (meats, etc.)	76.3	13.1	207.0	361.0	4.9	662.3	103.8	70.6	8.6	183.0	479.3	*3.6*
Food products (packaged)	84.1	119.3	70.2	168.8	2.7	445.1	28.1	25.9	42.5	96.5	348.6	*4.6*
Household products	22.4	9.4	33.1	87.8	0.2	152.9	17.7	5.9	2.5	26.1	126.8	*5.9*
Leather and shoes	22.8	8.5	43.6	54.9	0.6	130.4	5.4	6.5	4.5	16.4	114.0	*8.0*
Machinery (agricultural)	31.4	2.4	196.6	135.8	. . .	366.2	41.4	2.9	12.2	56.5	309.7	*6.5*
Machinery (industrial)	5.0	9.6	32.4	45.9	0.6	93.5	6.9	9.9	6.6	23.4	70.1	*4.0*
Metals (copper)	72.2	38.0	40.6	174.0	. . .	324.8	27.2	36.3	52.9	116.4	208.4	*2.8*
Metals (miscellaneous)	17.2	38.9	57.1	108.3	0.4	221.9	25.8	1.5	22.2	49.5	172.4	*4.5*
Office and business equipment	23.4	11.5	46.0	46.0	2.2	129.1	3.9	. .	16.2	20.1	109.0	*6.4*
Oil	354.8	341.7	585.7	1,273.0	15.7	2,570.9	359.8	17.8	128.4	506.0	2,064.9	*5.1*
Railway equipment	81.8	92.4	87.8	80.4	3.0	345.4	49.7	12.3	16.5	78.5	266.9	*4.4*
Retail trade	77.5	22.6	72.1	243.4	3.8	419.4	44.7	34.8	22.6	102.1	317.3	*4.1*
Retail trade (groceries)	60.8	6.7	7.5	138.2	1.3	214.5	45.2	1.6	10.4	57.2	157.3	*3.8*
Steel and iron	198.5	190.6	176.4	485.9	5.7	1,057.1	113.3	2.0	105.2	220.5	836.6	*4.8*
Sugar	30.5	5.6	12.2	75.1	5.3	128.7	10.6	11.5	4.3	26.4	102.3	*4.9*
Textiles	13.9	3.1	29.1	45.2	0.1	91.4	1.8	2.5	1.1	5.4	86.0	*16.9*
Theaters	15.6	. .	9.7	65.0	6.5	96.8	18.9	17.6	39.7	76.2	20.6	*1.3*
Tobacco	70.0	14.4	53.6	383.8	0.1	521.9	11.7	7.7	12.5	31.9	490.0	*16.4*
Total	1,830.7	1,317.3	2,340.2	5,041.8	87.2	10,617.2	1,154.2	310.1	775.6	2,239.9	8,377.3	*4.7*

Working Capital of Industrial Companies, 1930
(In millions of dollars)

Industry	Current Assets						Current Liabilities				Net Working Capital	*Current Ratio*
	Cash	Marketable Securities	Receivables (Net)	Inventory (Net)	Miscellaneous	Total	Accounts Payable	Notes Payable	Miscellaneous	Total		
Automobile parts	21.7	26.2	19.0	41.4	2.7	111.0	7.6	8.2	6.1	21.9	89.1	*5.1*
Automobile tires	64.9	7.9	104.0	171.1	1.6	349.5	22.9	4.6	10.8	38.3	311.2	*9.1*
Automobiles and trucks	205.9	76.3	78.9	226.6	10.3	598.0	47.1	5.0	71.0	123.1	474.9	*4.9*
Building materials and real estate	59.7	15.7	67.3	80.8	0.3	223.8	14.8	4.2	11.4	30.4	193.4	*7.4*
Chemicals	102.3	188.3	82.5	185.2	8.8	567.1	35.3	0.1	29.9	65.3	501.8	*8.7*
Coal	8.5	9.2	20.9	18.4	..	57.0	7.5	1.1	3.3	11.9	45.1	*4.8*
Containers	32.8	1.6	30.9	41.3	0.9	107.5	9.0	...	8.7	17.7	89.8	*6.1*
Electrical equipment	165.8	8.5	78.9	105.3	16.2	374.7	24.6	..	48.3	72.9	301.8	*5.1*
Food products (meats, etc.)	80.6	13.3	174.6	307.0	5.9	581.4	88.3	22.0	7.0	117.3	464.1	*5.0*
Food products (packaged)	100.5	111.9	63.2	155.5	2.5	433.6	25.1	14.4	41.5	81.0	352.6	*5.4*
Household products	20.3	13.9	32.1	79.1	0.4	145.8	15.9	1.0	0.9	17.8	128.0	*8.2*
Leather and shoes	26.8	6.5	34.0	47.9	0.5	115.7	2.8	3.7	3.5	10.0	105.7	*11.6*
Machinery (agricultural)	34.2	2.7	207.9	123.2	. .	368.0	29.9	8.4	10.1	48.4	319.6	*7.6*
Machinery (industrial)	13.7	2.4	32.7	42.3	0.6	91.7	3.9	1.1	5.8	10.8	80.9	*8.5*
Metals (copper)	40.3	32.8	25.5	145.3	.	243.9	18.6	50.2	19.9	88.7	155.2	*2.7*
Metals (miscellaneous)	23.2	47.8	30.7	118.6	0.2	220.5	14.1	6.5	25.5	46.1	174.4	*4.8*
Office and business equipment	22.5	14.2	37.1	41.0	2.5	117.3	3.2	...	10.4	13.6	103.7	*8.6*
Oil	325.8	317.8	548.3	1,241.9	39.6	2,473.4	329.4	36.2	111.4	477.0	1,996.4	*5.2*
Railway equipment	91.3	98.8	57.0	57.4	8.0	312.5	26.7	2.2	16.2	45.1	267.4	*6.9*
Retail trade	85.9	21.8	77.6	199.8	4.1	389.2	31.4	22.7	18.9	73.0	316.2	*5.3*
Retail trade (groceries)	87.7	9.0	6.8	123.2	0.6	227.3	43.1	4.9	11.7	59.7	167.6	*3.8*
Steel and iron	170.7	138.0	129.6	530.0	1.7	970.0	86.8	1.6	94.8	183.2	786.8	*5.3*
Sugar	27.8	1.8	11.1	74.1	5.5	120.3	6.9	16.4	9.6	32.9	87.4	*3.7*
Textiles	23.8	8.1	16.4	31.3	0.1	79.7	1.4	0.1	0.5	2.0	77.7	*39.9*
Theaters	17.0	.	13.8	78.7	5.8	115.3	26.2	4.5	18.0	48.7	66.6	*2.4*
Tobacco	103.6	13.2	56.1	384.2	...	557.1	12.0	1.0	14.1	27.1	530.0	*20.6*
Total	1,957.3	1,187.7	2,036.9	4,650.6	118.8	9,951.3	934.5	220.1	609.3	1,763.9	8,187.4	*5.6*

Working Capital of Industrial Companies, 1931
(In millions of dollars)

Industry	Current Assets						Current Liabilities				Net Working Capital	*Current Ratio*
	Cash	Marketable Securities	Receivables (Net)	Inventory (Net)	Miscellaneous	Total	Accounts Payable	Notes Payable	Miscellaneous	Total		
Automobile parts	23.0	24.9	14.1	33.1	0.5	95.6	6.1	11.8	2.9	20.8	74.8	*4.6*
Automobile tires	67.9	16.1	78.5	130.3	1.0	293.8	18.1	2.8	7.9	28.8	265.0	*10.2*
Automobiles and trucks	169.1	139.4	68.3	177.1	7.1	561.0	55.7	5.5	59.8	121.0	440.0	*4.6*
Building materials and real estate	46.1	17.7	42.3	66.1	0.4	172.6	10.9	3.7	7.7	22.3	150.3	*7.7*
Chemicals	90.8	170.7	72.1	170.4	10.0	514.0	25.5	4.1	25.9	55.5	458.5	*9.3*
Coal	8.7	9.7	15.5	19.2	0.1	53.2	3.0	1.3	4.7	9.0	44.2	*5.9*
Containers	19.2	0.9	32.5	43.0	1.1	96.7	6.4	. .	7.5	13.9	82.8	*6.9*
Electrical equipment	135.7	18.7	68.0	96.9	10.1	329.4	20.6	. .	25.0	45.6	283.8	*7.2*
Food products (meats, etc.)	124.0	29.3	138.2	207.9	6.8	506.2	75.7	4.1	6.4	86.2	420.0	*5.9*
Food products (packaged)	100.9	109.9	53.4	128.7	3.5	396.4	21.2	5.9	33.3	60.4	336.0	*6.6*
Household products	21.6	19.0	30.1	74.0	0.4	145.1	20.8	. .	1.2	22.0	123.1	*6.6*
Leather and shoes	24.7	2.0	33.2	43.0	0.5	103.4	2.8	1.6	3.8	8.2	95.2	*12.6*
Machinery (agricultural)	27.1	24.3	190.6	104.3	. .	346.3	19.0	8.9	7.5	35.4	310.9	*9.8*
Machinery (industrial)	17.1	4.1	25.4	33.7	0.5	80.8	3.7	0.9	2.8	7.4	73.4	*10.9*
Metals (copper)	31.9	14.9	18.3	138.0	.	203.1	12.1	61.8	7.1	81.0	122.1	*2.5*
Metals (miscellaneous)	17.0	46.3	29.1	114.4	0.1	206.9	10.6	23.7	14.6	48.9	158.0	*4.2*
Office and business equipment	21.1	16.1	28.3	37.5	2.4	105.4	2.9	.	7.5	10.4	95.0	*10.1*
Oil	307.0	360.3	456.5	1,050.6	38.1	2,212.5	220.4	36.3	77.4	334.1	1,878.4	*6.6*
Railway equipment	71.5	87.1	41.5	47.5	4.3	251.9	17.9	0.8	10.1	28.8	223.1	*8.7*
Retail trade	65.6	39.2	74.2	170.9	4.1	354.0	28.2	18.0	17.7	63.9	290.1	*5.5*
Retail trade (groceries)	62.9	57.9	8.1	112.3	1.1	242.3	39.5	2.1	12.7	54.3	188.0	*4.5*
Steel and iron	131.3	125.7	92.9	486.9	1.4	838.2	54.8	5.3	56.9	117.0	721.2	*7.2*
Sugar	25.7	2.7	9.8	49.3	4.8	92.3	6.8	4.4	5.8	17.0	75.3	*5.4*
Textiles	14.9	6.5	11.3	30.5	0.1	63.3	0.6	.	0.6	1.2	62.1	*52.8*
Theaters	12.8	.	6.8	61.3	7.0	87.9	14.0	11.5	12.7	38.2	49.7	*2.3*
Tobacco	106.4	40.0	48.1	352.2	0.1	546.8	10.7	1.5	15.1	27.3	519.5	*20.0*
Total	1,744.0	1,383.4	1,687.1	3,979.1	105.5	8,899.1	708.0	216.0	434.6	1,358.6	7,540.5	*6.6*

Working Capital of Industrial Companies, 1932
(In millions of dollars)

Industry	Current Assets						Current Liabilities				Net Working Capital	*Current Ratio*
	Cash	Marketable Securities	Receivables (Net)	Inventory (Net)	Miscellaneous	Total	Accounts Payable	Notes Payable	Miscellaneous	Total		
Automobile parts	13.4	29.2	10.7	21.6	1.2	76.1	4.9	1.6	2.0	8.5	67.6	*9.0*
Automobile tires	67.6	25.5	59.6	103.2	1.2	257.1	15.6	10.7	6.6	32.9	224.2	*7.8*
Automobiles and trucks	216.7	47.2	55.2	135.3	3.3	457.7	45.4	6.4	42.1	93.9	363.8	*4.9*
Building materials and real estate	41.8	18.3	33.2	56.2	0.4	149.9	10.6	7.5	6.0	24.1	125.8	*6.2*
Chemicals	80.0	155.7	60.2	157.6	0.1	453.6	21.7	...	17.1	38.8	414.8	*11.7*
Coal	7.4	9.6	13.2	15.0	0.1	45.3	3.6	0.8	4.0	8.4	36.9	*5.4*
Containers	32.3	0.9	28.2	33.2	1.4	96.0	5.7	...	6.9	12.6	83.4	*7.6*
Electrical equipment	129.7	19.2	39.7	72.0	6.3	266.9	15.6	...	13.5	29.1	237.8	*9.2*
Food products (meats, etc.)	129.0	41.8	109.3	160.8	3.7	444.6	60.8	1.5	7.3	69.6	375.0	*6.4*
Food products (packaged)	109.6	112.4	42.8	111.5	2.8	379.1	19.8	5.8	32.5	58.1	321.0	*6.5*
Household products	22.7	27.1	22.4	53.3	0.1	125.6	11.5	0.2	1.0	12.7	112.9	*9.9*
Leather and shoes	32.0	0.4	25.9	31.3	0.4	90.0	2.7	0.9	3.0	6.6	83.4	*13.6*
Machinery (agricultural)	37.3	23.9	159.4	99.0	...	319.6	15.2	3.9	5.3	24.4	295.2	*13.1*
Machinery (industrial)	8.5	9.2	23.7	29.1	0.5	71.0	3.5	0.5	1.8	5.8	65.2	*12.2*
Metals (copper)	25.1	12.2	16.0	112.0	...	165.3	10.3	70.6	4.7	85.6	79.7	*1.9*
Metals (miscellaneous)	17.7	43.8	18.1	102.7	...	182.3	8.9	25.8	8.5	43.2	139.1	*4.2*
Office and business equipment	20.2	15.6	22.3	30.1	1.6	89.8	3.1	...	5.1	8.2	81.6	*11.0*
Oil	360.0	210.6	453.9	963.4	14.8	2,002.7	231.5	62.5	74.5	368.5	1,634.2	*5.4*
Railway equipment	70.7	75.3	31.5	37.6	1.8	216.9	12.1	0.1	6.9	19.1	197.8	*11.4*
Retail trade	60.6	33.3	55.2	159.3	. .	308.4	21.5	27.8	14.2	63.5	244.9	*4.9*
Retail trade (groceries)	75.7	55.8	11.3	104.1	1.4	248.3	38.7	0.4	11.6	50.7	197.6	*4.9*
Steel and iron	116.5	89.1	59.8	411.2	1.1	677.7	41.4	4.8	36.6	82.8	594.9	*8.2*
Sugar	34.7	4.4	24.1	22.8	4.6	90.6	6.4	2.0	4.1	12.5	78.1	*7.2*
Textiles	10.3	10.8	8.1	22.7	...	51.9	0.7	...	0.2	0.9	51.0	*57.7*
Theaters	7.0	5.5	4.9	41.9	3.7	63.0	12.7	9.3	8.0	30.0	33.0	*2.1*
Tobacco	126.7	79.6	39.0	333.7	...	579.0	8.6	...	17.7	26.3	552.7	*22.0*
Total	1,853.2	1,156.4	1,427.7	3,420.6	50.5	7,908.4	632.5	243.1	341.2	1,216.8	6,691.6	*6.5*

WORKING CAPITAL OF INDUSTRIAL COMPANIES, 1933
(In millions of dollars)

Industry	Current Assets						Current Liabilities				Net Working Capital	*Current Ratio*
	Cash	Marketable Securities	Receivables (Net)	Inventory (Net)	Miscellaneous	Total	Accounts Payable	Notes Payable	Miscellaneous	Total		
Automobile parts	9.1	28.5	13.3	27.3	0.4	78.6	6.5	1.8	3.3	11.6	67.0	*6.8*
Automobile tires	51.5	36.1	64.8	121.3	. .	273.7	24.2	2.5	8.9	35.6	238.1	*7.7*
Automobiles and trucks	180.0	70.2	42.6	178.8	2.6	474.2	60.8	1.1	50.1	112.0	362.2	*4.2*
Building materials and real estate	34.5	17.6	35.2	67.3	...	154.6	10.7	6.5	7.1	24.3	130.3	*6.4*
Chemicals	103.0	141.1	74.5	165.8	...	484.4	33.9	. .	20.8	54.7	429.7	*8.9*
Coal	5.4	8.6	12.1	12.0	.	38.1	3.1	1.4	3.7	8.2	29.9	*4.6*
Containers	18.2	2.1	33.0	60.0	1.0	114.3	12.5	...	10.1	22.6	91.7	*5.1*
Electrical equipment	75.2	63.7	34.8	76.0	3.5	253.2	12.7	. .	8.8	21.5	231.7	*11.8*
Food products (meats, etc.)	108.8	31.0	115.8	219.1	2.9	477.6	56.2	14.4	15.4	86.0	391.6	*5.6*
Food products (packaged)	105.2	105.0	44.9	134.9	5.5	395.5	23.5	0.6	33.5	57.6	337.9	*6.9*
Household products	20.5	30.8	20.3	58.8	. .	130.4	5.9	0.1	10.1	16.1	114.3	*8.1*
Leather and shoes	19.8	0.9	30.5	38.0	0.1	89.3	4.3	0.7	4.3	9.3	80.0	*9.6*
Machinery (agricultural)	31.7	34.8	130.6	105.9	...	303.0	18.5	...	4.4	22.9	280.1	*13.2*
Machinery (industrial)	10.8	5.1	21.7	28.4	0.5	66.5	3.6	0.5	1.7	5.8	60.7	*11.5*
Metals (copper)	28.4	20.6	24.4	118.7	. .	192.1	10.0	70.7	8.5	89.2	102.9	*2.2*
Metals (miscellaneous)	29.2	45.1	24.4	126.9	0.1	225.7	13.6	22.8	16.1	52.5	173.2	*4.3*
Office and business equipment	16.0	12.5	26.7	32.5	...	87.7	4.1	...	6.3	10.4	77.3	*8.4*
Oil	356.9	225.6	401.1	961.1	11.1	1,955.8	265.7	23.2	109.2	398.1	1,557.7	*4.9*
Railway equipment	63.9	66.4	30.0	43.0	0.1	23.4	11.9	...	10.3	22.2	181.2	*9.2*
Retail trade	66.1	30.0	55.9	207.5	...	359.5	20.6	32.6	27.7	80.9	278.6	*4.4*
Retail trade (groceries)	77.3	51.6	11.1	124.8	1.2	266.0	40.6	0.1	12.9	53.6	212.4	*5.0*
Steel and iron	105.5	88.5	91.5	404.2	...	689.7	50.8	11.1	44.5	106.4	583.3	*6.5*
Sugar	19.7	6.8	10.2	48.3	0.9	85.9	6.7	2.1	4.2	13.0	72.9	*6.6*
Textiles	8.0	1.5	13.5	45.1	0.3	68.4	2.5	5.9	1.4	9.8	58.6	*7.0*
Theaters	12.0	7.1	4.8	42.7	1.7	68.3	13.1	1.2	8.0	22.3	46.0	*3.1*
Tobacco	69.9	104.0	37.5	333.1	...	544.5	5.2	...	10.5	15.7	528.8	*34.7*
Total	1,626.6	1,235.2	1,405.2	3,781.5	31.9	8,080.4	721.2	199.3	441.8	1,362.3	6,718.1	*5.9*

Working Capital of Industrial Companies, 1934
(In millions of dollars)

Industry	Current Assets						Current Liabilities				Net Working Capital	*Current Ratio*
	Cash	Marketable Securities	Receivables (Net)	Inventory (Net)	Miscellaneous	Total	Accounts Payable	Notes Payable	Miscellaneous	Total		
Automobile parts...	15.3	26.5	17.2	29.7	0.7	89.4	8.3	0.5	5.4	14.2	75.2	*6.3*
Automobile tires..........	48.0	13.1	68.7	158.5	...	288.3	27.5	8.1	11.5	47.1	241.2	*6.1*
Automobiles and trucks.. .	192.7	52.4	69.8	205.5	0.4	520.8	77.9	1.9	68.2	148.0	372.8	*3.5*
Building materials and real estate........	49.8	17.9	33.2	69.1	0.2	170.2	9.5	5.8	7.2	22.5	147.7	*7.6*
Chemicals...	123.4	131.4	74.1	183.8	...	512.7	25.6	0.5	42.3	68.4	444.3	*7.5*
Coal........ .	6.1	7.7	11.8	15.4	...	41.0	2.8	2.0	3.9	8.7	32.3	*4.7*
Containers.......... .	34.1	9.3	26.8	53.8	1.2	125.2	10.9	...	14.5	25.4	99.8	*4.9*
Electrical equipment...... .	76.8	58.6	35.6	87.0	4.9	262.9	14.5	...	14.4	28.9	234.0	*9.1*
Food products (meats, etc.)..	89.1	22.5	119.9	274.6	10.6	516.7	46.2	17.8	48.5	112.5	404.2	*4.6*
Food products (packaged)...	116.0	98.5	46.6	148.7	4.4	414.2	20.9	0.6	39.8	61.3	352.9	*6.8*
Household products...	23.3	26.6	19.8	60.3	...	130.0	4.9	0.2	10.7	15.8	114.2	*8.2*
Leather and shoes.. ...	15.7	4.6	26.8	47.8	...	94.9	3.8	1.4	3.8	9.0	85.9	*10.5*
Machinery (agricultural)..	34.9	34.4	110.9	115.7	...	295.9	7.0	...	19.3	26.3	269.6	*11.3*
Machinery (industrial)	6.6	2.5	20.7	34.4	0.5	64.7	4.2	0.6	3.2	8.0	56.7	*8.1*
Metals (copper)......	35.5	24.6	13.5	102.4	...	176.0	9.2	61.2	8.8	79.2	96.8	*2.2*
Metals (miscellaneous)...	42.4	21.4	23.3	128.7	2.7	218.5	12.6	16.2	19.6	48.4	170.1	*4.5*
Office and business equipment	17.2	9.9	28.8	35.7	...	91.6	2.6	0.4	8.8	11.8	79.8	*7.8*
Oil................	360.3	198.2	352.2	998.5	22.1	1,931.3	243.5	81.9	151.2	476.6	1,454.7	*4.1*
Railway equipment..	45.1	73.1	25.3	43.9	0.8	188.2	9.4	0.1	13.8	23.3	164.9	*8.1*
Retail trade...... . .	89.0	16.1	67.5	208.5	0.1	381.2	22.2	19.4	32.9	74.5	306.7	*5.1*
Retail trade (groceries)..	61.2	48.6	12.2	143.3	1.1	266.4	37.8	0.1	12.4	50.3	216.1	*5.3*
Steel and iron. .	128.5	85.6	89.0	414.6	0.6	718.3	39.3	7.7	65.7	112.7	605.6	*6.4*
Sugar......	27.3	5.2	11.9	53.7	0.9	99.0	8.0	3.1	10.0	21.1	77.9	*4.7*
Textiles...	13.2	0.3	9.9	32.9	0.2	56.5	1.4	0.7	0.4	2.5	54.0	*22.6*
Theaters....	13.3	8.5	4.0	51.6	2.1	79.5	14.6	1.5	7.0	23.1	56.4	*3.4*
Tobacco....	64.9	72.8	34.6	373.3	0.1	545.7	4.6	...	20.0	24.6	521.1	*22.2*
Total...	1,729.7	1,070.3	1,354.1	4,071.4	53.6	8,279.1	669.2	231.7	643.3	1,544.2	6,734.9	*5.4*

WORKING CAPITAL OF INDUSTRIAL COMPANIES, 1935

(In millions of dollars)

Industry	Current Assets						Current Liabilities				Net Working Capital	*Current Ratio*
	Cash	Marketable Securities	Receivables (Net)	Inventory (Net)	Miscellaneous	Total	Accounts Payable	Notes Payable	Miscellaneous	Total		
Automobile parts........	15.9	28.3	21.7	38.3	0.5	104.7	11.5	1.5	8.0	21.0	83.7	*5.0*
Automobile tires.........	55.5	2.1	84.0	162.3	...	303.9	26.4	14.5	15.7	56.6	247.3	*5.4*
Automobiles and trucks.	265.9	24.9	110.0	278.9	0.9	680.6	127.0	6.1	104.1	237.2	443.4	*2.9*
Building materials and real estate................	41.3	15.4	36.5	79.1	0.5	172.8	12.4	5.2	9.4	27.0	145.8	*6.4*
Chemicals................	150.4	118.4	88.1	191.1	...	548.0	26.8	2.0	53.4	82.2	465.8	*6.7*
Coal.....................	5.5	7.2	12.0	12.0	...	36.7	3.2	2.0	3.6	8.8	27.9	*4.2*
Containers..............	32.6	3.2	34.5	63.0	0.2	133.5	12.8	...	14.5	27.3	106.2	*4.9*
Electrical equipment....	96.5	44.7	42.4	86.7	9.6	279.9	24.3	...	21.0	45.3	234.6	*6.2*
Food products (meats, etc.)..	101.6	23.8	129.2	275.4	3.5	533.5	45.8	18.7	55.8	120.3	413.2	*4.4*
Food products (packaged)...	135.6	90.5	49.1	138.2	5.0	418.4	21.2	2.5	44.6	68.3	350.1	*6.1*
Household products........	23.9	14.0	28.5	79.4	...	145.8	6.5	0.1	12.5	19.1	126.7	*7.6*
Leather and shoes........	22.7	...	29.5	50.8	0.1	103.1	4.0	3.1	4.6	11.7	91.4	*8.8*
Machinery (agricultural)...	43.4	34.3	132.4	127.7	...	337.8	12.2	3.5	28.7	44.4	293.4	*7.6*
Machinery (industrial).....	6.3	1.8	29.1	39.7	0.2	77.1	6.8	2.6	5.0	14.4	62.7	*5.4*
Metals (copper)..........	55.4	20.5	19.0	99.9	2.1	196.9	10.4	...	13.7	24.1	172.8	*8.2*
Metals (miscellaneous).....	53.4	19.7	29.7	127.3	5.0	235.1	17.7	9.4	33.9	61.0	174.1	*3.9*
Office and business equipment	19.9	8.9	34.3	35.9	...	99.0	3.4	0.1	11.1	14.6	84.4	*6.8*
Oil......................	438.8	187.7	367.4	974.1	21.1	1,989.1	236.5	135.0	154.6	526.1	1,463.0	*3.8*
Railway equipment........	43.2	63.0	29.9	48.2	3.1	187.4	14.1	...	15.3	29.4	158.0	*6.4*
Retail trade.............	80.0	9.9	91.3	237.4	1.3	419.9	26.2	18.2	38.8	83.2	336.7	*5.0*
Retail trade (groceries).....	70.9	51.8	11.8	145.8	0.8	281.1	42.2	4.6	11.6	58.4	222.7	*4.8*
Steel and iron.............	143.9	70.0	113.9	431.7	0.9	760.4	56.8	5.8	75.1	137.7	622.7	*5.5*
Sugar.....................	34.0	4.9	10.6	42.9	0.8	93.2	7.0	0.2	4.8	12.0	81.2	*7.8*
Textiles..................	6.0	...	15.0	42.3	...	63.3	2.5	2.8	1.1	6.4	56.9	*9.9*
Theaters..................	14.1	3.4	4.1	63.2	2.8	87.6	11.9	4.1	13.6	29.6	58.0	*3.0*
Tobacco..................	58.8	41.2	41.1	389.7	...	530.8	4.7	1.6	17.0	23.3	507.5	*22.8*
Total.................	2,015.5	889.6	1,595.1	4,261.0	58.4	8,819.6	774.3	243.6	771.5	1,789.4	7,030.2	*4.9*

Working Capital of Industrial Companies, 1936
(In millions of dollars)

Industry	Current Assets						Current Liabilities				Net Working Capital	*Current Ratio*
	Cash	Marketable Securities	Receivables (Net)	Inventory (Net)	Miscellaneous	Total	Accounts Payable	Notes Payable	Miscellaneous	Total		
Automobile parts	14.7	25.6	29.4	47.0	0.3	117.0	16.3	5.4	9.5	31.2	85.8	*3.8*
Automobile tires	53.8	1.6	96.9	200.5	...	352.8	37.1	15.0	19.1	71.2	281.6	*5.0*
Automobiles and trucks	262.0	32.0	137.0	326.2	0.7	757.9	145.1	2.2	135.9	283.2	474.7	*2.7*
Building materials and real estate	39.6	13.6	44.2	90.2	0.5	188.1	14.8	10.5	12.5	37.8	150.3	*5.0*
Chemicals	170.2	83.3	96.0	195.9	...	545.4	33.6	1.8	71.7	107.1	438.3	*5.1*
Coal	3.6	5.2	12.0	13.2	...	34.0	3.1	3.2	5.0	11.3	22.7	*3.0*
Containers	39.4	2.4	36.4	70.8	0.2	139.2	19.8	...	13.9	33.7	105.5	*4.1*
Electrical equipment	70.1	59.2	55.4	108.5	10.4	303.6	34.9	...	23.3	58.2	245.4	*5.2*
Food products (meats, etc.)	84.3	28.3	131.6	317.1	4.5	565.8	43.2	39.4	64.0	146.6	419.2	*3.9*
Food products (packaged)	130.4	91.2	52.2	176.2	3.8	453.8	23.8	10.4	54.7	88.9	364.9	*5.1*
Household products	23.9	27.6	29.0	78.3	...	158.8	8.5	0.9	14.9	24.3	134.5	*6.5*
Leather and shoes	23.1	...	30.5	56.8	0.1	110.5	3.7	4.4	6.8	14.9	95.6	*7.4*
Machinery (agricultural)	65.8	14.2	151.4	148.2	...	379.6	12.0	...	43.0	55.0	324.6	*6.9*
Machinery (industrial)	4.8	...	34.6	50.9	...	90.3	9.1	4.8	7.9	21.8	68.5	*4.1*
Metals (copper)	61.0	20.7	25.3	106.4	0.9	214.3	13.4	2.0	18.7	34.1	180.2	*6.3*
Metals (miscellaneous)	67.1	18.4	37.4	116.0	3.3	242.2	19.2	16.8	35.8	71.8	170.4	*3.4*
Office and business equipment	18.7	10.3	39.4	40.2	...	108.6	4.0	3.3	13.0	20.3	88.3	*5.3*
Oil	408.2	165.9	398.1	964.2	14.4	1,950.8	282.8	93.0	185.6	561.4	1,389.4	*3.5*
Railway equipment	61.3	55.0	37.6	64.9	1.8	220.6	21.7	3.0	22.6	47.3	173.3	*4.7*
Retail trade	75.5	10.1	125.9	293.1	1.2	505.8	40.9	...	60.0	100.9	404.9	*5.0*
Retail trade (groceries)	67.1	51.0	11.2	162.9	0.2	292.4	43.2	2.2	13.7	59.1	233.3	*4.9*
Steel and iron	158.5	44.3	166.1	491.6	0.4	860.9	83.4	5.9	110.0	199.3	661.6	*4.3*
Sugar	37.5	6.7	10.0	44.9	0.9	100.0	6.9	0.4	4.8	12.1	87.9	*8.3*
Textiles	7.1	...	18.4	46.3	...	71.8	2.7	11.0	1.8	15.5	56.3	*4.6*
Theaters	14.4	7.4	7.0	70.6	2.3	101.7	11.3	5.6	18.7	35.6	66.1	*2.9*
Tobacco	41.8	31.3	39.1	415.4	0.1	527.7	5.0	4.2	20.5	29.7	498.0	*17.8*
Total	1,993.9	805.3	1,852.1	4,696.3	46.0	9,393.6	939.5	245.4	987.4	2,172.3	7,221.3	*4.3*

WORKING CAPITAL OF INDUSTRIAL COMPANIES, 1937
(In millions of dollars)

Industry	Current Assets						Current Liabilities				Net Working Capital	*Current Ratio*
	Cash	Marketable Securities	Receivables (Net)	Inventory (Net)	Miscellaneous	Total	Accounts Payable	Notes Payable	Miscellaneous	Total		
Automobile parts	14.0	20.9	21.6	62.0	0.5	119.9	11.1	6.7	9.3	27.1	91.9	*4.4*
Automobile tires	40.5	0.5	94.2	227.4	.	362.6	40.1	35.3	16.4	91.8	270.8	*3.9*
Automobiles and trucks	195.2	26.8	99.1	374.0	0.8	695.9	83.6	1.7	119.4	204.7	491.2	*3.4*
Building materials and real estate	40.9	12.4	38.4	101.9	0.9	194.5	12.6	12.8	13.7	39.1	155.4	*5.0*
Chemicals	141.5	112.4	81.0	241.4	0.1	576.4	37.4	3.2	74.6	115.2	461.2	*5.0*
Coal	3.5	4.3	10.8	14.6	. .	33.2	3.5	4.8	7.8	16.1	17.1	*2.1*
Containers	14.7	0.5	54.8	99.5	. .	169.5	13.6	21.0	15.0	49.6	119.9	*3.4*
Electrical equipment	58.0	11.9	66.9	168.0	12.9	317.7	42.5	12.5	33.7	88.7	229.0	*3.6*
Food products (meats, etc.)	87.5	11.8	132.9	325.5	4.9	562.6	42.8	55.0	64.5	162.3	400.3	*3.5*
Food products (packaged)	136.1	74.8	54.6	184.5	4.9	454.9	31.0	15.1	47.8	93.9	361.0	*4.8*
Household products	27.5	5.7	29.9	108.6	. . .	171.7	9.1	2.4	17.0	28.5	143.2	*6.0*
Leather and shoes	19.1	.	28.5	65.0	0.1	112.7	3.0	8.1	4.7	15.8	96.9	*7.1*
Machinery (agricultural)	46.5	0.6	183.9	194.6	. .	425.6	20.0	7.9	59.9	87.8	337.8	*4.8*
Machinery (industrial)	11.2	. .	38.7	77.2	. . .	127.1	11.5	5.3	12.7	29.5	97.6	*4.3*
Metals (copper)	58.6	33.8	17.3	140.5	3.4	253.6	12.9	2.0	32.3	47.2	206.4	*5.4*
Metals (miscellaneous)	73.8	14.5	32.5	125.2	3.0	249.0	21.4	9.0	42.2	72.6	176.4	*3.4*
Office and business equipment	21.3	6.7	38.3	48.3	. .	114.6	3.7	2.3	15.5	21.5	93.1	*5.3*
Oil	389.4	192.6	461.1	1,149.5	9.2	2,201.8	327.3	100.7	257.2	685.2	1,516.6	*3.2*
Railway equipment	72.7	47.6	40.5	78.1	1.4	240.3	18.3	5.0	22.5	45.8	194.5	*5.2*
Retail trade	86.2	11.4	139.6	289.4	0.1	526.7	37.7	. . .	62.3	100.0	426.7	*5.3*
Retail trade (groceries)	75.1	48.9	12.3	146.4	0.1	282.8	41.2	0.1	12.1	53.4	229.4	*5.3*
Steel and iron	139.8	47.6	147.9	592.2	. . .	927.5	74.0	14.1	134.2	222.3	705.2	*4.2*
Sugar	37.8	9.5	11.5	50.5	0.9	110.2	9.5	2.3	9.8	21.6	88.6	*5.1*
Textiles	5.8	.	17.5	39.0	0.2	62.5	2.1	4.4	0.8	7.3	55.2	*8.6*
Theaters	16.0	5.0	7.4	79.8	2.1	110.3	14.2	7.6	21.4	43.2	67.1	*2.6*
Tobacco	48.3	20.7	39.5	466.0	. .	574.5	5.2	56.2	19.5	80.9	493.6	*7.1*
Total	1,861.0	720.9	1,900.7	5,449.1	45.5	9,977.2	929.3	395.5	1,126.3	2,451.1	7,526.1	*4.1*

IV. GEOGRAPHIC DISTRIBUTION OF SECURITY ORIGINATIONS

In Chapter VIII on pages 146-47, the position of New York and certain other cities in the origination and distribution of securities was discussed. We present here the data with respect to all security flotations issued between 1925 and 1936.

Cities which Originated Business Security Issues (Excluding Investment Trust Issues), 1925-36[a]

City	Number of Issues under $500,000	Total Issues Large and Small (In thousands of dollars)
New York, N.Y.	310	22,241,927
Albany, N.Y.	1	2,980
Appleton, Wis.	1	495
Atlanta, Ga.	10	8,984
Augusta, Ga.	1	350
Aurora, Ill.	1	1,650
Baltimore, Md.	40	265,094
Bangor, Maine	1	100
Bay City, Mich.	1	200
Benton Harbor, Mich.	1	161
Birmingham, Ala.	11	6,018
Boston, Mass.	59	1,895,060
Bridgeport, Conn.	5	6,889
Buffalo, N.Y.	12	34,553
Burlington, Iowa	2	755
Burlington, Vt.	4	1,888
Camden, N.J.	1	300
Canton, Ohio	2	3,290
Canton, N.Y.	2	700
Charleston, S.C.	8	3,917
Charlestown, W.Va.	..	618
Charlotte, N.C.	1	475
Chattanooga, Tenn.	1	2,296
Chicago, Ill.	266	3,737,186
Cincinnati, Ohio	20	136,135
Cleveland, Ohio	35	630,077
Colorado Springs, Colo.	..	640
Columbia, S.C.	1	150
Columbus, Ohio	11	5,927
Corning, N.Y.	1	150
Dallas, Tex.	12	9,508
Davenport, Iowa	9	7,121
Dayton, Ohio	3	1,191
Denver, Colo.	15	96,768
Des Moines, Iowa	13	8,402
Detroit, Mich.	98	240,181
Dubuque, Iowa	1	249
Duluth, Minn.	1	5,697
East Orange, N.J.	...	500
Everitt, Wash.	...	1,250
Fond du Lac, Wis.	2	600
Fort Wayne, Ind.	2	575
Fort Worth, Tex.	1	300
Galveston, Tex.	1	1,350
Gastonia, N.C.	10	2,376
Grand Rapids, Mich.	5	4,806
Harrisburg, Pa.	...	766
Hartford, Conn.	4	46,771
Hartsville, S.C.	2	593
Hazleton, Pa.	1	148
Houston, Tex.	4	2,149
Indianapolis, Ind.	30	15,849
Ithaca, N.Y.	...	14,185
Jackson, Miss.	1	100
Jacksonville, Fla.	1	50
Jamestown, N.Y.	...	501
Jersey City, N.J.	...	2,000
Kansas City, Mo.	29	42,755
Lancaster, Pa.	3	2,410
Laurel, Miss.	1	200
Lexington, Ky.	2	1,625
Little Rock, Ark.	2	255
Los Angeles, Calif.	72	126,142
Louisville, Ky.	9	22,545
Madison, Wis.	4	765
Meadville, Pa.	1	280
Memphis, Tenn.	8	5,320
Milwaukee, Wis.	20	53,374
Minneapolis, Minn	58	107,026
Mobile, Ala.	1	121
Nashville, Tenn.	8	14,859
Newark, N.J.	1	20,420
New Haven, Conn.	3	19,158
New Orleans, La.	14	27,199
Niagara Falls, N.Y.	1	300
Omaha, Nebr.	7	3,197
Pasadena, Calif.	1	175
Peoria, Ill.	1	201
Philadelphia, Pa.	35	956,100
Pittsburgh, Pa.	35	487,443
Portland, Maine	10	19,900
Portland, Oreg.	34	21,770
Providence, R.I.	4	33,355
Raleigh, N.C.	3	598
Richmond, Va.	11	8,571
Rochester, N.Y.	...	7,030
Royston, Ga.	1	75
Ruston, La.	2	325
St. Louis, Mo.	54	156,910
St. Paul, Minn.	9	20,960
Salt Lake City, Utah	1	350
San Antonio, Tex.	4	2,051
San Diego, Calif.	1	350
San Francisco, Calif.	71	663,295
Savannah, Ga.	15	11,311
Scranton, Pa.	3	3,474
Seattle, Wash.	18	18,283
Shreveport, La.	5	1,269
Spartansburg, S.C.	4	4,505
Spokane, Wash.	6	6,002
Springfield, Ill.	1	100
Springfield, Mass.	6	4,575
Syracuse, N.Y.	6	4,009
Toledo, Ohio	3	5,557
Topeka, Kans.	1	300
Utica, N.Y.	...	4,504
Washington, D C.	4	14,581
Waterbury, Conn.	2	525
Wausau, Wis.	1	2,648
West Bend, Wis.	...	3,100
Wichita, Kans.	1	200
Wilmington, Del.	2	9,502
Youngstown, Ohio	1	1,323

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[a] Based on raw data from O. P. Schwarzschild, ed., *American Underwriting Houses and Their Issues*, Vols. I-VII. There were five cities, not listed above, for which data were not available.

Position of New York City in Security Originations, 1925–36[a]

I. VALUE OF TOTAL ISSUES

(In thousands of dollars)

Year	United States	New York City	*Percentage New York City*
1925	2,996,120	2,016,768	*67.3*
1926	3,415,415	2,175,113	*63.7*
1927	5,429,291	3,358,143	*61.9*
1928	4,356,308	2,656,352	*61.0*
1929	3,741,771	2,328,966	*62.3*
1930	3,428,584	2,373,035	*69.2*
1931	1,829,201	1,195,739	*65.4*
1932	456,628	334,701	*73.3*
1933	172,570	118,253	*68.5*
1934	259,092	229,477	*88.6*
1935	1,999,105	1,788,734	*89.5*
1936	4,291,174	3,666,646	*85.4*

II. NUMBER OF ISSUES UNDER $500,000

Year	Total	New York City	*Percentage New York City*
1925	224	33	*14.7*
1926	228	33	*14.5*
1927	281	39	*13.9*
1928	263	48	*18.3*
1929	224	45	*20.1*
1930	76	12	*15.8*
1931	42	10	*23.6*
1932	14	7	*50.0*
1933	94	33	*35.1*
1934	10	5	*50.0*
1935	24	11	*45.8*
1936	134	34	*25.4*

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[a] Compiled from raw data in O. P. Schwarzschild, ed., *American Underwriting Houses and Their Issues*, Vols. I–VII.

Date	Name of Company	Assets (In thousands of dollars)	Amount	Type of Issue
Jan. 1930	Filice & Perelli Canning Co., Inc.	1,259	$ 300,000	1st mtg conv 7/40
" "	Pacific Tel. & Tel. Co.	449,436	87,500,000	Common stock
" "	Gilmore Oil Co. Ltd.	4,436	2,274,804	Common stock
Feb. "	Crown Zellerbach Corp.	118,580	10,000,000	Deb 6/40 W.W.
" "	Byron Jackson Co.	5,811	2,500,000	Conv deb 6½/40
" "	Atlas Imperial Diesel Engine Co.	3,945	1,000,000	Conv deb 6/35
" "	Pacific Mtg. Guaranty Co.	1,860	1,000,000	1st mtg assign 6/32–35
" "	Southern Calif. Edison	375,817	7,075,000	Common stock
" "	Associated Calitalo Holdings Ltd.	2,000	2,146,812	Common stock
" "	MacMarr Stores, Inc.	15,446	685,400	7% cum pfd
" "	Pacific Mutual Life Ins. Co.	177,672	2,200,000	Common stock
Mar. "	Southern Calif. Edison	375,817	5,000,000	Ref mtg 5/54
" "	Union Oil of California	384,369	15,000,000	Deb 5/45
" "	Pacific Lighting Corp.	257,760	7,309,150	Common stock
Apr. "	California Water Service Co.	22,255	1,000,000	1st 5s, 1958
" "	West Coast Telephone	8,810	200,000	1st & ref 5/55
" "	Broadway & 20th St. Props.	N.A.	1,000,000	1st 6s, 1933–50
" "	Caterpillar Tractor Co.	54,367	10,000,000	5% conv notes 1935
" "	Columbia Pictures Corp.	5,797	2,125,000	Common stock
" "	Bolsa Chica Oil Corp.	3,427	90,000	Class A common
" "	Cypress Petroleum Co.	1,431	299,650	Class B common
" "	Richfield Oil Co. of Calif.	131,974	2,500,000	Common stock
" "	Orange Land Trust	N.A.	200,000	Benef int shares
May "	Associated Telephone Co. Ltd.	14,946	6,000,000	1st 5s, 1965
" "	Coast Counties Gas & Electric	10,857	4,000,000	1st 5s, 1960
" "	Ray Burner Co.	1,038	400,000	Conv 6s, 1935
" "	Firemen's Fund Indemnity	3,844	1,000,000	Common stock
June "	Signal Oil & Gas Co.	13,577	2,500,000	Conv deb 6½/45
" "	Roman Cath. Diocese of Monterey-Fresno	N.A.	370,000	Direct oblig 5½/40–45
" "	W. Patton Wilson, Inc.	N.A.	1,000,000	1st 6½s, 1945
" "	Pacific Mortgage Guaranty Co.	1,860	1,000,000	Gtd 1st 6/32–35
July "	Pacific Gas & Electric Co.	684,687	25,000,000	1st 4½s, 1960
" "	California Packing Corp.	76,553	15,000,000	Conv deb 5/40
" "	Pacific Greyhound Lines, Inc.	9,479	1,200,000	Equip mtg 6/31–34
" "	Pickwick Greyhound Lines, Inc.	13,624	500,000	Equip mtg 6/30–34
Sept. "	Illinois Pacific Coast Co.	7,592	2,500,000	Conv 6s, 1945
" "	Pacific Freight Lines	6,310	1,576,250	$1.75 cum partic pref stock
Oct. "	Paraffine Cos.	19,290	1,500,000	Conv 5s, 1935
" "	Talmadge Park Estates	N A.	85,000	1st mtg coll tr 6½/1935
Dec. "	San Diego Cons. Gas & Elec.	40,280	1,500,000	1 yr 4% notes, 1931
Jan. 1931	Pacific Gas & Electric	708,582	25,000,000	1st & ref 4½/60
" "	Santa Barbara Tel. Co.	2,632	400,000	Gen & ref 5s, 1961
" "	Pacific Gas & Elec. Co.	708,582	14,185,000	Common stock
" "	Pacific Mutual Life Ins. Co.	190,323	600,000	Common stock
Feb. "	Pacific Gas & Electric Co.	708,582	1,664,000	5½% preferred ($25)
" "	Southern California Edison	384,120	7,800,000	Common stock
Mar. "	Nevada-California Electric	56,845	2,000,000	1st 5s, 1956
" "	Southern California Gas Co.	70,930	12,500,000	1st 4½s, 1961
" "	Langendorf United Bakeries	4,097	1,000,000	1st conv 6½/41
" "	Pacific Public Service Co.	32,273	8,000,000	5% notes, 1936
Apr. "	Associated Telephone Co.	17,257	2,000,000	1st 5s, 1965
" "	Santa Barbara Telephone Co.	2,632	1,180,000	1st 5s, 1961
May "	Realty Investors Corp. of Calif.	N.A.	250,000	6½% pref ($25)
June "	Salvation Army	N.A.	225,000	1st 5½s, 1942
July "	Calif. & Hawaiian Sugar Ref.	29,308	4,450,000	1st 5s, 1932–37
" "	California State Life Ins. Co.	44,518	1,200,000	Common stock
Aug. "	Arlington Corp. of Calif.	N.A	300,000	1st 6½s, 1946
" "	Creameries of America	7,064	500,000	$3.50 cum pfd
" "	Pacific Tel. & Tel. Co.	454,240	1,905,000	Common stock
Sept. "	Fox West Coast Theatres	N.A.	175,000	1st 7s, 1946

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[a] Compiled by Dean Witter and Co., San Francisco, at the request of the Brookings Institution.
[b] Yield basis.
[c] This is the price per unit of A and B shares combined.

JANUARY 1, 1930–SEPTEMBER 1, 1938[a]

Underwriter	Offering Price	Underwriters' Profit	Purpose of Issue
Freeman, Smith & Camp Co.	100	...	Refunding & new plant
Offered by company to stockholders	100	...	Capital expenditures
Offered by company to stockholders	12	...	Expansion of business
Blyth & Co., Bancamerica Blair, etc.	98	...	Capital expenditures, additions, etc.
Tucker, Hunter, Dulin & Co.	100	...	Capital expenditures, etc.
J. Barth & Co. & others	100	...	Capital expenditures & working capital
Offered by company	100	...	Working capital
Offered by company to stockholders	25	...	Capital expenditures
Frederick Vincent & Co.	3½	...	Acquisitions
Merrill, Lynch & Co. & others	103	...	Capital expenditures, etc.
Offered by company to stockholders	50	...	Expansion of business
Offered by company	...	...	Refunding, additions, etc.
Dillon, Read & Co. & others	99½	.	Expansion & other purposes
Offered by company to stockholders	50	.	General corporation purposes
G. L. Ohrstrom & Co. & others	98	...	Additions & betterments
Peirce, Fair & Co. & others	...	..	Additions & betterments
Anglo-London Paris, & others	99½	...	Finance construction
Peirce, Fair & Co. & others	98½	.	Retire bank debt, etc.
Goddard & Co.	42½	...	New equipment & other purposes
Offered by company to stockholders	10	.	Development & improvement
Offered by company to stockholders	2	.	General corporation purposes
Placed privately with bankers	..	.	Working capital
Alvin B. Giles Co.	10	.	Acquisition & development
Paine, Webber & Co & others	97½		Refunding additions, etc
Dean Witter & Co. & others	99½		Refunding additions, improvements,etc.
Peirce, Fair & Co.	.		Retire debt, working capital
Offered to stockholders affiliated companies	40	...	New capital
Banks, Huntley & Co. & others	100	..	Development, new additions, etc.
Geo. H. Burr & Co	100	.	Mortgage on real estate owned
Griffith-Wagenseller Co.	100	...	Acquisitions, improvements, etc.
Offered by company	100	...	Funds for loan purposes
National City Co.	96½	...	Capital expenditures
Dean Witter & Co.	100	...	Retire notes payable, working capital
Anglo-London-Paris Co.	5½–6½%[b]	...	Acquire equipment
M. H. Lewis & Co.	6–6½%[b]	.	Additional equipment
Mitchum Tully & Co. & others	98½	...	Acquisitions & retire debt
A. E. Fitkin & Co., Ltd.	24¼	...	Acquisitions & other corporation purpose
Dean Witter & Co	100	..	Expansion & other purposes
J. M. C. Marble Co.	100	.	Finance sale of property
Harris, Forbes & Co. & others	99½	..	Retire current debt & other purposes
National City Co. & others	98		Refunding
Crocker 1st Co. & others	101½	...	Retire current debt
Offered by company to stockholders	25	...	Construction
Offered by company to stockholders	25	.	Additional capital
Offered by company	25	.	Additions & extensions
Offered by company to stockholders	25	. .	Capital expenditures
Spencer Trask & Co. & others	93	...	Additions & extensions
Tucker, Hunter, Dulin & others	95½	..	Refunding & other purposes
Dean Witter & Co	99½	...	Acquisitions & working capital
Guaranty Co. & others	99	...	Refunding & other purposes
Bonbright & Co. & others	101¼	...	Additions & other purposes
Crocker First Co.	102½	...	Refunding
Littlepage, Sheehy & Co.	25	...	Working capital
Dean Witter & Co.	100	...	Real estate mortgage
Weeden & Co.	4–5½%	...	Refunding
Offered by company to stockholders	40	...	Additional capital
Banks, Huntley & Co.	98	...	Finance construction
B. B. Robinson & Co.	50	...	Pay current debts
G. M. P. Murphy & Co. & others	127	...	Not new financing
California Securities Co.	100	...	Finance construction

SECURITY FLOTATIONS IN PACIFIC COAST AREA

Date	Name of Company	Assets (In thousands of dollars)	Amount	Type of Issue
Nov. 1930	Vernor's Ginger Ale Co. of Calif.	N.A.	250,000	Class A & Class B
Dec. "	San Diego Cons. Gas & Elec.	41,515	1,500,000	1 yr 4½% notes, 1932
Feb. 1932	Associated Telephone Co.	17,744	500,000	1st 5s, 1965
" "	Pacific Gas & Electric Co.	718,322	2,312,775	6% 1st pfd ($25)
Mar. "	Southern California Edison	385,181	10,000,000	Ref 5s, 1954
June "	California Oregon Power Co.	38,068	4,000,000	Ref 6½s, 1942
Sept. "	San Diego Cons. Gas & Elec.	42,873	2,000,000	1st & ref 5½s, 1960
Jan. 1933	Acme Brewing Co.	265	100,000	Common stock
Aug. "	Capital Brewing Co.	250	250,000	Common stock
Oct. "	Lockheed Aircraft	384	280,000	Common stock
July 1934	Pacific Investors, Inc.	316	310,200	Common stock
Sept. "	San Jose Water Works	5,306	1,187,000	1st conv 5s, 1954
Jan. 1935	San Jose Water Works	5,310	925,000	6% conv pfd ($25)
" "	San Jose Water Works	5,310	860,250	Common stock
Feb. "	Atlas Imperial Diesel Engine	2,226	691,000	6% conv notes 1945
Mar. "	Pacific Gas & Electric Co.	716,751	45,000,000	1st & ref 4/64
Apr. "	Southern California Edison	376,164	73,000,000	Ref 3¾s, 1960
May "	San Diego Cons. Elec. & Gas	43,942	15,500,000	1st 4s, 1965
" "	Union Oil of California	150,694	7,500,000	Conv deb 4s, 1947
" "	Union Oil of California	...	6,000,000	Serial deb 1936–40
" "	Pacific American Fisheries	7,398	1,200,000	5% pfd ($100)
June "	Pacific Gas & Electric	716,751	30,000,000	1st 4s, 1964
July "	Associated Telephone Co.	18,094	8,500,000	1st 4s, 1965
Oct. "	Lockheed Aircraft	887	131,498	Common stock
July "	Southern California Edison	376,164	35,000,000	Ref 3¾s, 1960
" "	Southern California Gas Co.	69,374	15,000,000	1st 4s, 1965
" "	American Toll Bridge Co.	8,810	4,300,000	1st 5½s, 1936–45
Aug. "	Coast Counties Gas & Elec.	9,436	3,000,000	1st 4s, 1965
Sept. "	Pacific Gas & Electric Co.	716,751	20,000,000	1st 4s, 1964
" "	Southern California Edison	376,164	30,000,000	1st 4s, 1960
" "	Southern California Edison	376,164	27,500,000	Serial debentures
Oct. "	Pacific Lighting Corp.	261,009	10,000,000	Deb 4½s, 1945
" "	Byron Jackson Co.	3,738	1,000,000	2–4% deb 1936–40
Nov. "	California Water & Telephone	11,907	5,000,000	1st 5s, 1965
" "	Los Angeles Gas & Electric	123,894	40,000,000	1st 4s, 1970
Jan. 1936	Food Machinery Corp.	7,306	2,000,000	4½ conv pfd ($100)
Mar. "	Pacific Gas & Electric	716,751	90,000,000	1st 3¾/61
" "	Knudsen Creamery Co.	1,104	375,000	1st conv 5½/50
" "	American Trust Co.	266,966	7,500,000	4% conv pfd ($50)
" "	American Trust Co.	266,966	10,500,000	Common stock
Apr. "	California Ore Power Co.	38,213	13,500,000	1st 4s, 1966
" "	Pacific Gas & Electric	725,807	30,000,000	1st 3¾s, 1961
" "	Pacific Tel. & Tel. Co.	460,307	30,000,000	1st 3½s, 1966
" "	Railway Equip. & Realty	28,234	3,500,000	Equip mtg 4½/46
" "	Santa Barbara Telephone	3,317	1,460,000	1st 3½s, 1966
" "	Bullock's, Inc.	18,582	5,000,000	Sec 4s, 1937–46
" "	Associated Telephone Co.	18,216	2,657,800	$1.25 pfd ($25)
" "	R. G. LeTourneau, Inc.	1,437	1,086,825	Common stock
" "	Bullock's, Inc.	18,582	4,000,000	5% pfd ($100)
May "	Lockheed Aircraft	887	381,210	Common stock
" "	California Water & Telephone	11,907	1,721,424	6% pfd ($25)
June "	California Water Service Co.	19,342	10,000,000	1st 4s, 1961
" "	California Water Service Co.	19,342	550,000	1¼–4¼ notes 1937–46
" "	Paraffine Cos.	20,426	2,380,400	4% conv pfd ($100)
July "	Douglas Aircraft Co.	13,027	4,106,600	Common stock
" "	Kobe, Inc.	725	300,000	$1.20 pfd ($20)
" "	Pacific Can Co.	2,432	1,045,000	Common stock
Sept. "	Creameries of America	7,302	1,250,000	Deb 5s, 1946
Oct. "	Pacific Gas & Elec.	740,006	35,000,000	1st 3½s, 1966
" "	Super Mold Corp.	782	352,000	Common stock

JANUARY 1, 1930–SEPTEMBER 1, 1938[a]—*Continued*

Underwriter	Offering Price	Under-writers' Profit	Purpose of Issue
Harris, Small & Co.	10°	...	New capital
Chase, Harris, Forbes & others	99	...	Refunding
Bonbright & Co.	86	...	Acquisitions & other purposes
Offered by company to customers	25	...	Capital expenditures
Chase, Harris, Forbes & others	96	...	Refunding, extensions & acquisitions
Chase, Harris, Forbes & others	93	...	Additions & extensions
Chase, Harris, Forbes & others	96	...	Refunding, capital expenditures
E. Graham Elliott & Co.—L A.	2½	...	Not new financing
N. H. Bennett & Co.—Sacto	5	...	Acquisitions, additional working capital
G. Brashears & Co.—L.A.	1.40	...	Working capital
Offered to stockholders Amer. Cap. Corp.	2.20	...	Funds for investment purposes
E. H. Rollins & Sons & others	99	7.0%	Acquisitions, additions, improvements
E. H. Rollins & Sons & others	23½	...	Pay debt to parent company
E. H. Rollins & Sons & others	23¼	...	Pay debt to parent company
Offered to holders of matur. debt	100	None	Refunding
Lazard Freres & others	100	3.0%	Refunding
First Boston Corp.	98½	2.5%	Refunding
First Boston Corp.	101	3.0%	Refunding
Dillon, Read & others	100¾	2.5%	Refunding
Dillon Read & others	100	0.75%	
Elworthy & Co. & others	100	5.0%	General corporation purposes
Lazard Freres & others	104	2.0%	Refunding
Bonbright & Co. & others	99	3.0%	Refunding
Offered to stockholders	3¼	None	New development, working capital
First Boston Corp. & others	98½	2.0%	Refunding
Blyth & Co & others	101½	2.5%	Refunding
Blyth & Co. & others	3–5½%	3.5%	Refunding
Dean Witter & Co. & others	103½	3.5%	Refunding
Lazard Freres & Co & others	102	2.0%	Refunding
First Boston & others	102	2.0%	Refunding
First Boston & others	⅞–3¾%	0.73%	Refunding
Blyth & Co. & others	100	2.5%	Refunding
Dulin & Co. & others	2–4¼%	3.4%	General corporation purposes
Blyth & Co. & others	101	4.0%	Acquisitions
Blyth & Co. & others	102	2.5%	Refunding
Kidder, Peabody & others	102	3.5%	Pay current debt & corporation purpose
Blyth & Co. & others	102½	2.0%	Refunding
G. Brashears & Co.—L.A.	. .	..	General corporation purposes
Blyth & Co. & others	51½	2.9%	Refunding
Blyth & Co. & others	42	3.0%	Not new financing
First Boston & others	97½	2.5%	Refunding & additions
Blyth & Co. & others	102¾	2.0%	Refunding
Morgan Stanley & others	101½	2.0%	Refunding
Blyth & Co. & others	100	3.0%	Pay loans, additions, new equipment
Blyth & Co. & others	102½	2.0%	Refunding
Blyth & Co. & others	1–4%	2.0%	Refunding
Bonbright & Co. & others	25	2.5%	Refunding
Dean Witter & Co.	19½	10.0%	Not new financing
Blyth & Co. & others	100	3.5%	Refunding
Offered by company to stockholders	6	...	New machinery & equipment
E. H. Rollins & Sons & others	24	5.2%	Not new financing
Dean Witter & Co. & others	102½	2.0%	Refunding, acquisitions, etc.
Dean Witter & Co. & others	1¼–4¼%	1.5%	Refunding, acquisitions, etc.
Offered by company to stockholders; underwritten by Lehman Bros. & others	100	3.0%	Pay loans, additions, improvements
Offered to stockholders; underwritten by Kuhn, Loeb & others	45	3.0%	Working capital
Hartley Rogers & Co.	20	8.0%	Development of business
Dean Witter & Co.	19	10.0%	Refunding, working capital
Mitchum Tully & others	100	5.5%	Retire current debt, etc.
Blyth & Co. & others	102¾	1.62%	Refunding
Dean Witter & Co.	11	19.8%	Not new financing

Date		Name of Company	Assets (In thousands of dollars)	Amount	Type of Issue
Oct.	1936	Marchant Calculating Machine Co.	2,513	582,804	Common stock
Dec.	"	Pacific Tel. & Tel. Co.	498,375	25,000,000	1st 3¼s, 1966
"	"	Filtrol Co. of Calif.	1,254	500,000	Conv deb 5s, 1946
"	"	North American Inves. Co.	5,790	1,500,000	Coll tr 4s/51
"	"	R. G. LeTourneau, Inc.	2,953	1,010,331	Common stock
"	"	Lockheed Aircraft Co.	2,931	1,500,000	Common stock
"	"	Pacific Finance Corp.	43,810	3,500,000	5% pfd ($100)
Jan.	1937	San Jose Water Works	5,384	2,051,000	1st 3¾s, 1961
"	"	Union Oil Co. of Calif.	153,215	10,000,000	Conv deb 3½/52
"	"	Emporium Capwell Co.	22,339	2,000,000	1st 4s, 1952
"	"	Emporium Capwell Co.	22,339	4,500,000	4½% pfd ($50)
"	"	Emporium Capwell Co.	22,339	800,000	Ser nts 4/38–42
"	"	Sherwood Swan & Co.	852	250,000	6% partic Cl A
"	"	Southern California Water Co.	8,359	3,400,000	1st 4½s, 1960
Mar.	"	Bireley's, Inc.	1,522	470,000	Common stock
"	"	California Cracker Co.	188	132,000	Units 1 pfd 1 com
"	"	Union Furniture Co.	1,041	500,000	Coll tr 5½/47
"	"	Soundview Pulp Co.	7,430	1,569,375	Common stock
"	"	Broadway Dept. Store	8,652	3,500,000	5% conv pfd ($100)
"	"	Soundview Pulp Co.	...	1,000,000	Serial notes
"	"	Broadway Dept. Store	8,652	1,500,000	Common stock
Apr.	"	Railway Equip. & Realty	28,165	5,000,000	1st 4½s, 1949
"	"	Earl Fruit Co.	11,008	2,500,000	1st 5½s, 1947
"	"	Payne Furnace & Supply	1,169	472,500	Conv A 60¢ pfd ($10)
"	"	Payne Furnace & Supply	1,169	200,000	Common stock
May	"	Los Angeles Ry. Corp.	49,185	750,000	Equip tr 5/37–45
"	"	San Jose Water Works	5,384	1,022,000	1st 3¾s, 1961
"	"	Rheem Manufacturing	3,557	1,320,000	Common stock
"	"	Ryan Aeronautical	327	204,825	Common stock
June	"	Safeway Stores, Inc.	66,726	15,000,000	Deb 4s, 1947
July	"	Food Machinery Corp.	13,726	4,000,000	4½ conv pfd ($100)
Aug.	"	LeTourneau Foundation	6,717	2,000,000	Coll tr conv 4/47
"	"	Axelson Mfg. Co.	2,440	854,720	Common stock
"	"	Doernbecher Mfg. Co.	2,555	675,000	Common stock
"	"	L. Hart & Son Co.	709	371,968	Common stock
"	"	Farallone Packing Co.	127	105,600	Common stock
Sept.	"	Cinecolor, Inc.	452	250,000	Common stock
Nov.	"	Security Aircraft Corp.	148	210,000	Common stock
Dec.	"	Associated Telephone Co.	22,524	1,800,000	1st 4s, 1965
"	"	Mode O'Day Corp.	1,670	400,000	Conv deb 6/47
"	"	Associated Telephone Co.	22,524	825,480	$1.25 pfd ($25)
"	"	Payne Furnace & Supply	1,169	200,000	Conv 60¢ pfd ($10)
"	"	Payne Furnace & Supply	1,169	40,000	Common stock
Jan.	1938	California Water Service	19,840	300,000	1st 4s, 1961
Feb.	"	Pacific Gas & Electric Co.	740,483	15,000,000	1st 3½s, 1966
Mar.	"	Cinecolor, Inc.	475	156,213	Common stock
Apr.	"	California Packing	65,408	6,000,000	2¾% deb 1939–44
May	"	Rheem Mfg. Co.	3,557	1,500,000	Conv deb 5/48
"	"	Southern Calif. Water	8,511	500,000	6% pfd ($25)
"	"	Southern Calif. Water	8,511	117,000	1st 4½s, 1960
June	"	Columbia Pictures Corp.	14,822	1,500,000	Deb 4¼s, 1944
"	"	Solar Aircraft Corp.	287	186,500	Common stock
"	"	Magnet Oil Co.	N.A.	187,500	Common stock
July	"	San Diego Water Supply	8,026	2,800,000	1st 3¾s, 1955
"	"	Langendorf United Bakeries	3,312	500,000	1st 5s, 1950
"	"	Jackman Color & Process Corp.	N.A.	125,000	Common stock
"	"	Super Mold Corp.	914	99,000	Common stock
Aug.	"	California Water & Telephone	11,416	400,000	1st 5s, 1965
Sept.	"	Corona City Water Co.	N.A.	160,000	1st 4s, 1958
"	"	Lane-Wells Co.	2,293	3,172,091	Common stock

JANUARY 1, 1930–SEPTEMBER 1, 1938—*Continued*

Underwriter	Offering Price	Underwriters' Profit	Purpose of Issue
Offered by company to stockholders; underwritten by Pacific Cap. Corp.	18	..	Improvements, working capital
Morgan Stanley & others	105	1.75%	Refunding & corporation purposes
Battson, Barnes & Lester & others	100	7.5%	Development & working capital
Blyth & Co. & others	100	2.5%	Refunding
Offered by company to stockholders	4½	None	Expansion of business
G. M. P. Murphy & Co. & others	11	13.6%	Working capital & additions
Dean Witter & Co. & others	101	3.0%	Refunding
Chandler & Co. & others	103	2.67%	Refunding
Dillon, Read & others	105½	2.0%	Refunding
Dean Witter & Co. & others	101	1.75%	Refund & working capital
Dean Witter & Co. & others	48	3.1%	Refund & working capital
Dean Witter & Co. & others	1–3%	5.36%	Refund & working capital
Miller & Co.—S F.	10	25.0%	Not new financing
Chandler & Co. & others	103¼	...	Not new financing
Pacific Capital Corp.	11⅜	11.9%	Pay debt, working capital
Rutland Edwards & Co.	11	..	Acquisition
Dean Witter & Co.	100	7.0%	Refund & working capital
Offered by company to stockholders	22½	None	Expansion
Blyth & Co. & others	100	3.5–2%	Refunding
Offered by company to institutions	100	None	
Blyth & Co. & others	25	None	To retire preferred
Blyth & Co. & others	98½	3.25%	Refunding, capital expenditures & working capital
Dulin & Co. & others	100	4.0%	Refund & working capital
Hammons & Co. & others	10½	23.8%	Construction
Hammons & Co. & others	10	20.0%	Construction
Sold privately	...	...	New equipment
Chandler & Co. & others	100	2.0%	Retire preferred & construction
Blyth & Co. & others	11	10.0%	Part working capital & part not new financing
G. Brashears & Co.	2½	20.0%	Additions & working capital
Merrill, Lynch & others	99½	3.0%	Pay loans & corporation purposes
Kidder, Peabody & others	103	3.0%	Refund & working capital
Dean Witter & Co.	103	1.5%	General foundation purposes
Griffith-Wagenseller Durst & others	10	11.2%	General corporation purposes & part not new financing
Dean Witter & Co. & others	9	11.1%	Refund & working capital
Stephenson, Lydecker & Co.	6¼	33.5%	Not new financing
Mason Bros. & others	6	..	Not new financing
G. Brashears & Co.	1½	25.0%	Equipment & working capital
Rutland, Edwards & Co.	1	...	General corporation purposes
Bonbright & Co & others	102½	3.0%	Pay loans & additions & betterments
Banks, Huntley & Co.	98	...	Pay loans & working capital
Bonbright & Co. & others	22½	6.6%	Pay loans & additions & betterments
Hammons & Co.	10½	24.4%	Pay loans & working capital
Hammons & Co	10	20.0%	Pay loans & working capital
Sold privately	...	...	Additions & betterments
Sold privately	...	...	Working capital & extensions
G. Brashears & Co.	1½	20.0%	Expansion & working capital
Sold privately	.	...	Refunding
Blyth & Co. & others	100	4.0%	Pay debts & working capital
Chandler & Co. & others	23	...	Additions & improvements
Chandler & Co.	92	...	Not new financing
Sold to insurance company	..	.	Pay loan & working capital
Hammons & Co.	2¼	20.0%	Expansion & working capital
Edgerton, Riley & Walter	1¼	35.0%	Development, pay loan, working capital
Sold to 6 insurance companies	...	...	Refunding
Sold to insurance company	...	...	Refunding
Hurry, Hilgers & Co.	2½	25.0%	New capital
Offered by company to stockholders	15	None	General corporation purposes
Blyth & Co. & others	100	3.5%	Additions
Battson & Co.	99½	4.0%	Refunding & other purposes
Blyth & Co. & others	15¼	11.4%	⅓ for working capital & ⅔ not new financing

V. CASE MATERIAL ILLUSTRATING TERM LOANS OF COMMERCIAL BANKS AND SECTION 13 B, DIRECT LOANS TO INDUSTRIES BY FEDERAL RESERVE BANKS

A. A Term Loan Contract

The term loan contract here presented relates to a packing house company. The contract form showing the schedule of payments with varying interest rates and the protective clauses follows:

June 1, 1936

No. 1a

$75,000.00

FOR VALUE RECEIVED, Packing Company, a corporation, hereby promises to pay to the Bank, blank city, blank state, or order, the sum of—

SEVENTY-FIVE THOUSAND DOLLARS ($75,000.00)

due and payable June 1, 1937, with interest on the principal from the date hereof at the rate of 1½% per annum, payable semi-annually on the first day of December, 1936 and June, 1937, and with interest after maturity at the rate of 6% per annum on both principal and interest, payable in lawful money of the United States of America at the office of the Bank, in blank city, blank state.

This note is one of a series of ten (10) notes of the Packing Company, entitled for identification "Promissory Notes of 1936" aggregating in principal amount $1,000,000.00 (hereinafter sometimes referred to as the "Notes"). Said notes are of like tenor and effect except as to interest rates, dates of maturity, and principal amounts, which are as follows:

No. 1 $ 75,000.00 1½% Notes dated June 1, 1936 due June 1, 1937
No. 1a $ 75,000.00 1½% Notes dated June 1, 1936 due June 1, 1937
No. 2 $ 75,000.00 2½% Notes dated June 1, 1936 due June 1, 1938
No. 2a $ 75,000.00 2½% Notes dated June 1, 1936 due June 1, 1938
No. 3 $ 75,000.00 3 % Notes dated June 1, 1936 due June 1, 1939
No. 3a $ 75,000.00 3 % Notes dated June 1, 1936 due June 1, 1939
No. 4 $ 75,000.00 3½% Notes dated June 1, 1936 due June 1, 1940
No. 4a $ 75,000.00 3½% Notes dated June 1, 1936 due June 1, 1940
No. 5 $200,000.00 3¾% Notes dated June 1, 1936 due June 1, 1941
No. 5a $200,000.00 3¾% Notes dated June 1, 1936 due June 1, 1941

1. The undersigned shall have the right and option from time to time, and at any time, to make prepayments of $50,000.00 or more on account of the indebtedness evidenced by the notes outstanding, these prepayments in each case to apply to the last maturing note. In each case of such prepayment the holder or holders thereof shall endorse such prepayment upon the appropriate note or notes, and shall execute and deliver to the undersigned advice, in writing acknowledging receipt of such prepayment and certifying that notation evidencing such payment has been made upon the appropriate note. In the event an entire maturity is taken up, the note or notes evidencing such maturity shall be cancelled and returned to the undersigned.

2. In the event of any transfer of any note or notes evidencing the aforesaid indebtedness, or any part thereof, by the original holder or holders or any subsequent holder or holders thereof, written notice of every such transfer shall be delivered to the undersigned immediately by the transferor and the transferee.

3. It is understood that the proceeds of this loan will be used, together with funds of the undersigned, to retire all of its outstanding 6% Debentures due December 1, 1942 and that all these Debentures will so be retired and cancelled.

4. The undersigned agrees that while these notes are outstanding and unpaid it will not place any mortgage on its present plant or equipment, and the undersigned further agrees that it will not, without the consent of the holder or holders of these notes, create any additional debt other than bank loans or other obligations incurred for current purposes in the ordinary course of business. However, this shall not affect the right of the undersigned to purchase additional property and create or assume the payment of mortgage or mortgages thereon.

5. The undersigned agrees that its properties will be maintained and preserved in good repair, working order and condition, and that it will insure, or cause to be insured, its properties against such risks and in such amounts as is customary with respect to like properties, and that it will advise the holder or holders of these notes of the amount and character of the insurance carried, upon written request therefor.

6. The undersigned agrees that it will duly pay and discharge, or cause to be paid and discharged, all taxes, assessments and other governmental charges lawfully imposed upon its properties, or upon any part thereof, as well as lawful claims for labor, material and supplies, which, if unpaid, might by law become a lien or charge upon the property concerned, provided that it shall not be required to pay and discharge, or cause to be paid or discharged, any such taxes, assessments, or other governmental charges or claims for labor, material and supplies so long as in good faith the validity thereof shall be contested by appropriate proceedings by the undersigned or someone else similarly situated.

7. In the event of default in the payment of any annual installment of principal or semi-annual installment of interest, or in the event of default in the performance of any of the other conditions herein provided for, on its part to be kept and performed, and the continuance of such default for a period of thirty days after written notice thereof from the holder or holders of these notes, specifying wherein the default consists, or if a receiver shall be appointed for the undersigned, or a petition in bankruptcy or for reorganization of the corporation under the Bankruptcy Act, as amended, shall be filed by or against it, or in the event that the undersigned shall make a general assignment for the benefit of its creditors, or shall admit in writing its inability to pay its debts generally, as the same shall fall due, then and in such events, or any of them, the holder or holders of these notes, by notice in writing to the undersigned, may declare the entire balance of said notes to be, and the same shall thereupon become, immediately due and payable.

8. In the event any one of the conditions set forth in the previous paragraph takes place and the entire balance is declared due thereunder, the undersigned agrees that any moneys which it may have on deposit with the holder or holders hereof may be offset and applied toward the payment of these notes, or any of them.

9. The undersigned agrees to furnish the holder or holders of these notes with its regular balance sheet and operating figures, the same as it has been accustomed to furnish said Bank as Trustee of its 6% Debentures of 1942.

IN WITNESS WHEREOF, the undersigned has caused this note to be signed and its corporate seal to be hereunto affixed and attested by its officers thereunto duly authorized, this first day of June, 1936.

PACKING COMPANY

By.........................

President

ATTEST:

....

Secretary

B. A Federal Reserve Bank Direct Loan to Industry

The case given here consists of the material presented to the Industrial Advisory Committee in connection with an application of a knit goods and cellophane converter company for a loan of $35,000 for five years, 60 per cent to be repaid in three years. It was furnished partly by the company itself and partly by the credit department of the Federal Reserve bank to which the application was made. Statements which would identify the company and a section giving detailed financial data with respect to trends of earnings, assets, and liabilities have been omitted.

1. CIRCUMSTANCES GIVING RISE TO APPLICATION

(1) Operating losses since 1931 as the result of severe competition, largely Japanese, and the consequent loss of business in the millinery market, caused a reduction in working capital.

(2) Payment of a mortgage in the amount of $50,000 out of current assets in 1932, occasioned further severe reduction in working capital.

(3) Working capital was reduced $6,000 more in 1933 when applicant's bank of deposit reopened after the bank holiday and issued preferred stock to the extent of approximately 72% of deposits.

The local bank now refuses further credit to applicant, due to criticism of the existing loan by the bank examiners. Applicant is in need of funds for seasonal requirements and retirement of some outstanding debts and general conduct of the business.

2. PARTICIPATION BY OTHER BANKS

The local bank would participate to the amount of $15,000. Applicant company owes this institution $9,000. They also owe $5,000 to the president of the local bank who holds a mortgage on the property and plant as security. Retirement of these two obligations would be expected by the participant out of requested advance.

When the local trust company was closed during the bank holidays of 1933, it failed to reopen till December of 1933. Applicant could not borrow and in addition was deprived of its funds on deposit. Out of consideration for the long association the trust company had had with the applicant, the president of the local bank made a loan of $5,000 personally, later accepting the mortgage as security. It is claimed that this loan would have been made by the bank had conditions been different at the time.

3. PURPOSES FOR WHICH PROCEEDS WOULD BE USED

Applicant proposes using proceeds of requested advance as follows:

(a) Retirement of present mortgage held by president of bank	$ 5,000
(b) Retirement of present short-term notes to bank	9,000
(c) Retirement of personal note to bank	5,000
(d) Financing of raw material purchases in advance of coming season	7,000
(e) Reserve for payrolls	5,000
(f) Repairs to roof	1,000
(g) Payment of municipal taxes	3,000
Total	$35,000

The local bank has loaned the president personally $5,000 taking collateral as security. Applicant desires not only to pay off notes due the bank and the note due the president of the local bank but also the above mentioned personal note in order that there may be no debts of applicant or its officers due the local bank. The local bank, however, does not expect payment of the personal debt out of requested advance inasmuch as they are willing to participate only in an amount sufficient to cover only the applicant's obligations. There is not any reason why this personal note should be paid and should not be included in any advance made by the Federal Reserve Bank.

4. PROGRAM FOR LIQUIDATION

Applicant proposes repayment of loan in five annual installments of $7,500 each. Applicant is willing to retire loan in a shorter period if possible.

5. CHARACTER OF BUSINESS AND METHOD OF OPERATION

Originally established as manufacturers of fancy millinery braids applicant has now become a manufacturer of knit goods and converters of cellophane. Finished products are sold through jobbers or directly to retailers. A number of products are now manufactured including cellophane yarn, ribbon and millinery braid, laminated paper and cellophane book covers, underwear, shirtings, piece goods for neckties, etc. Sales are made only to the best houses, through a group of salesmen located only in the business centers of the United States. A representative handles their Pacific coast trade who also represents another organization. The rest of their salesmen operate for applicant alone.

6. ECONOMIC INFORMATION

Millinery braids, which originally were the bulk of the applicant's business, have rapidly been growing less profitable to manufacture. This is due to domestic competition in part, but primarily to Japanese competition. Imports from Japan wiped out profitable manufacture of millinery braid. Applicant has gradually developed other lines of business to replace its line of millinery braids and they are considered capable creators.

7. MANAGEMENT

All sources report the management as exceedingly capable and of highest moral integrity. The managers are reported highly conservative and are considered capable and conservative.

The president is about 65 years of age and has been engaged in this business for many years. Because of his knowledge of the business, he has been used as consultant many times. He is known as a good moral risk and a highly conservative man.

The vice president is a young man of about 30 years of age. He attended Wharton School of Finance and Commerce of the University of Pennsylvania and Columbia Business School of Columbia University in New York. He is in charge of the knit goods department and manager of the sales in the East.

The treasurer is approximately 35 years of age. He is general plant superintendent and handles the cellophane end of the business primarily. He completed a three year course in Philadelphia Textile School. He has a close knowledge of the work at hand particularly as to mechanical and chemical detail.

The secretary has been an employee of the applicant 12 years. He completed his education at New York University. He is in charge of the office and accounting.

8. COLLATERAL OFFERED AS SECURITY

Applicant offers the property on which the plant is located and the two factory buildings as security to the loan. The property is approximately two and one half acres, and is located in an excellent factory district abutting on the main line of the railroad. Two hundred and fifty feet of railroad siding is on the property. Transportation facilities of all kinds are readily accessible.

The plant is composed of two buildings which are of brick construction and comparatively modern. They are in an excellent state of repair save for the roofs which are to be repaired from part of the proceeds of the loan.

	Gross Book Value	Depreciation	Net Value	Assessed Value	Mortgages
Land	$ 15,000	$ —	$15,000	$ 7,000	$5,000
Buildings	105,000	20,000	84,040	45,000	
Machinery and equipment	94,124	57,966	..	10,000	

Fire insurance, windstorm, sprinkler leakage, cyclone, tornado, etc., carried at $225,000 on buildings and contents. Boiler explosion insurance of $25,000 is carried.

9. ENDORSEMENTS OFFERED AS FURTHER SECURITY

No endorsements have been offered.

10. BANKING RELATIONS INCLUDING RECENT EFFORTS TO OBTAIN ACCOMMODATION

Applicant now carries an account with the local bank having no other bank of account. Although not having an active account very long, the applicant has been known to the local bank many years through its connection with the trust company. Accommodation has been granted up to $9,000 bearing indorsement of the president. His personal statement has not been requested inasmuch as the loan of $5,000 made to him personally is secured by collateral. He is reported as having considerable worth invested in unencumbered property. Aside from the $9,000 due, one of the bank's directors has loaned the subject personally $5,000 taking a mortgage on the plant. The bank examiners have criticized their loan to the company and for that reason applicant has been referred to the Federal Reserve bank. The local bank wishes to have the amount of $14,000 due them and their directors paid, but in turn are willing to participate to the extent of $15,000 in the loan. They speak very well of the ability of the management and the management's moral integrity.

The local trust company had banking relations with the applicant and predecessor company twenty-three years. Because it was closed from the bank holiday till December of 1933 and then reopened on a restricted basis, the account was transferred to the local bank which is owned by the depositors of the trust company. Excellent balances were carried there until the mortgage of $50,000 was paid. Balances had averaged $25,000. The recent highest credit granted applicant was $10,000. Upon request for accommodation of $35,000, the trust company refused because, being on a restricted basis, they could not grant a mortgage loan nor were they willing to loan such a large amount on own paper. They speak very highly of the moral integrity of the applicant and express confidence in the ability of the management. They state that applicant should obtain a mortgage, but that banks in the community are unwilling to do so today owing to recent severe banking difficulties in that district.

11. TRADE RELATIONS

All trade houses speak favorably of the applicant. The highest credit reported amounted to $3,300. Various terms are granted applicant from 1%, ten days, to net 10 days, E.O.M. Payments are reported from prompt to a few days slow with a growing tendency to be slow. Applicant is considered by some "as the type of house they like to deal with."

SUMMARY

From 1926 to 1934 the company has not shown an ability to make a profit except in 1931. Volume of sales since 1931 has decreased sharply, and for the first ten months of 1934 indicate further decline. Operating losses for the first 8 months of 1934 amounted to $18,000 as compared with $10,000 for the year 1933. Applicant explains, however, that August is the last month of their dull season and that later months will take up this loss.

A cellophane converting business has been substituted for the millinery braid business. Applicant has great confidence in this new line and, so far, it is indicated that this line is rapidly improving although competition in cellophane fabrication is rising rapidly.

The moral integrity and creative ability of the management is unquestioned.

The local bank would participate to the amount of $15,000 provided their loan of $9,000 and their director's loan of $5,000, secured by a first mortgage on the real estate, are retired out of requested advance.

A part of the requested advance is to be used to retire a loan made by the local bank to the president of the company. This loan of $5,000 is secured by marketable collateral. This loan was made for the purpose of obtaining funds to meet the factory payroll.

The collateral offered appears adequate to cover the loan.

Inasmuch as applicant's sales volume largely depends upon the success of their cellophane business, ability to repay requested advance out of earnings is highly problematical.

GRANTED.

APPENDIX D

CORPORATE TAXES AND INCOME DISTRIBUTION

This appendix presents the basic data for the table on page 274 and the charts on pages 276-77. These data have been compiled in part from published sources and in part from data supplied by corporations. It was essential to get some of the data directly from corporations because the published reports do not usually segregate the various tax items.

TAX[a] AND INCOME DATA FOR SELECTED SUCCESSFUL CORPORATIONS
(In thousands of dollars)

Classification	1923	1926	1929	1932	1935	1937
RAILS (Class I roads)[b]						
Gross income	6,646,779	6,784,482	6,738,067	3,421,115	3,708,106	4,420,331
Federal taxes	77,063	108,272	89,444	11,925	24,674	72,700
State and local taxes	259,858	285,553	312,618	268,865	213,698	255,544
Interest	489,314	512,896	515,262	528,105	511,647	493,976
Dividends	346,545	405,224	490,126	93,926	188,809	167,902
Additions to surplus	182,625	384,460	381,703	−241,100	−189,215	−80,244
UTILITIES						
1. Traction (5 cos.)						
Gross income	161,327	175,647	185,551	173,696	155,977	157,800
Federal taxes	1,398	2,565	1,436	1,255	1,651	2,306
State and local taxes	8,146	8,391	8,295	8,395	9,953	12,085
Interest	28,095	29,642	30,525	33,286	31,937	31,263
Dividends	7,145	11,513	10,730	6,941	6,833	7,385
Additions to surplus	2,954	3,087	7,938	146	−1,582	−6,796
2. Light and Power (8 cos.)						
Gross income	141,266	195,109	253,570	229,505	242,526	273,263
Federal taxes	4,044	7,634	8,297	6,474	9,436[c]	15,559
State and local taxes	7,495	11,707	15,885	19,251	21,321	24,514
Interest	17,458	21,210	24,758	28,156	29,636	25,543
Dividends	20,134	35,916	58,006	61,714	53,904	58,430
Additions to surplus	11,841	17,499	25,326	6,057	9,602	9,829
3. Gas (8 cos.)						
Gross income	89,790	106,179	120,527	106,762	108,531	125,478
Federal taxes	1,796	2,527	2,522	2,379	2,194	2,702
State and local taxes	5,045	6,574	8,616	9,308	9,746	12,694
Interest	7,890	9,906	11,583	13,193	13,195	12,660
Dividends	7,286	8,131	19,002	14,788	8,591	7,930
Additions to surplus	2,790	7,084	2,643	1,389	1,295	3,859

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[a] Excludes foreign taxes.

[b] Excludes switching and terminal companies.

[c] The company reporting third largest gross income in this group paid no U. S income tax for 1935 because certain non-recurrent deductions made in that year resulted in no taxable income. The percentages for the other seven companies for 1932, 1935, and 1937 are 2 69, 4.27, and 5.72 respectively.

TAX AND INCOME DATA FOR SELECTED SUCCESSFUL CORPORATIONS—*Continued*

Classification	1923	1926	1929	1932	1935	1937
UTILITIES—*Continued*						
4. Water (6 cos.)						
Gross income.......	4,213	5,323	6,094	6,061	6,181	6,518
Federal taxes...... .	140	181	171	149	227	294
State and local taxes	511	661	793	877	923	1,129
Interest	666	874	1,010	1,319	1,328	1,213
Dividends	886	1,243	1,597	1,493	1,515	1,412
Additions to surplus.	255	336	464	42	−67	296
5 Telephone (8 cos.)						
Gross income.. .	324,703	467,727	508,374	465,315	508,071	573,349
Federal taxes	5,316	10,772	11,345	10,931	12,261	20,499
State and local taxes	16,943	26,306	31,868	34,348	38,774	51,654
Interest...........	19,519	23,035	26,837	27,375	20,704	18,349
Dividends . .	42,302	61,164	75,045	90,190	83,990	95,512
Additions to surplus	6,841	11,165	23,355	−13,851	−3,164	1,485
INDUSTRIALS						
1. Motors (3 cos.)						
Gross income.......	...	...	1,935,821	630,042	1,952,462	2,751,290
Federal taxes	.	..	30,653	4,157	72,268	115,075
State and local taxes	.	...	13,122	11,651	11,210	26,101
Interest..	..	.	3,518	2,792	900	—
Dividends..	.	..	179,415	67,589	124,320	215,731
Additions to surplus	...	. .	89,636	−82,466	89,893	34,466
2. Iron and Steel (5 cos.)						
Gross income .. .	..	2,030,296	2,159,129	541,724	1,185,526	2,319,175
Federal taxes .	.	23,274	27,255	718	10,066	62,233
State and local taxes	.	42,620	45,604	39,926	39,852	52,404
Interest	.	43,478	32,714	20,934	21,031	17,726
Dividends .	.	78,819	125,033	22,986	14,978	110,785
Additions to surplus		85,375	144,214	−133,102	5,343	49,169
3. Elec. Equip. (3 cos)						
Gross income.. . .	.	559,068	704,414	251,010	382,163	661,506
Federal taxes ..		12,966	16,954	465	9,987	27,845
State and local taxes.	..	5,293	5,815	4,986	6,024	14,688
Interest............	..	2,663	1,523	1,087	1,042	541
Dividends....	...	34,363	56,060	21,142	26,408	85,484
Additions to surplus.	...	32,045	42,724	−18,308	15,359	6,030
TRADE—CHAIN STORES[d] (7 cos)						
Gross income......	.	515,667[d]	1,271,723	955,053	1,321,509	1,676,793
Federal taxes......	.	5,332[d]	8,495	3,281	14,059	25,083
State and local taxes	.	3,466[d]	8,059	10,210	18,623	28,806
Interest..	..					
Dividends..	.	12,987	40,621	22,910	30,705	69,715
Additions to surplus.	...	34,755	41,185	−13,053	38,745	16,499
MINING (6 cos.)						
Gross income.......	...	102,601	126,590	34,995	109,311	165,448
Federal taxes	..	3,987	5,044	267	4,107	9,250
State and local taxes.	..	3,186	3,528	3,723	4,069	5,136
Interest............	...	2,773	1,887	2,262	2,251	638
Dividends..........	...	21,023	32,911	2,105	13,763	31,719
Additions to surplus.	...	6,606	9,862	−17,853	8,008	7,758

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[d] Interest included in cost of goods sold. Figures for 1926 are for five companies; for all other years even companies.

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